APRIL 1986 ISSUE 4

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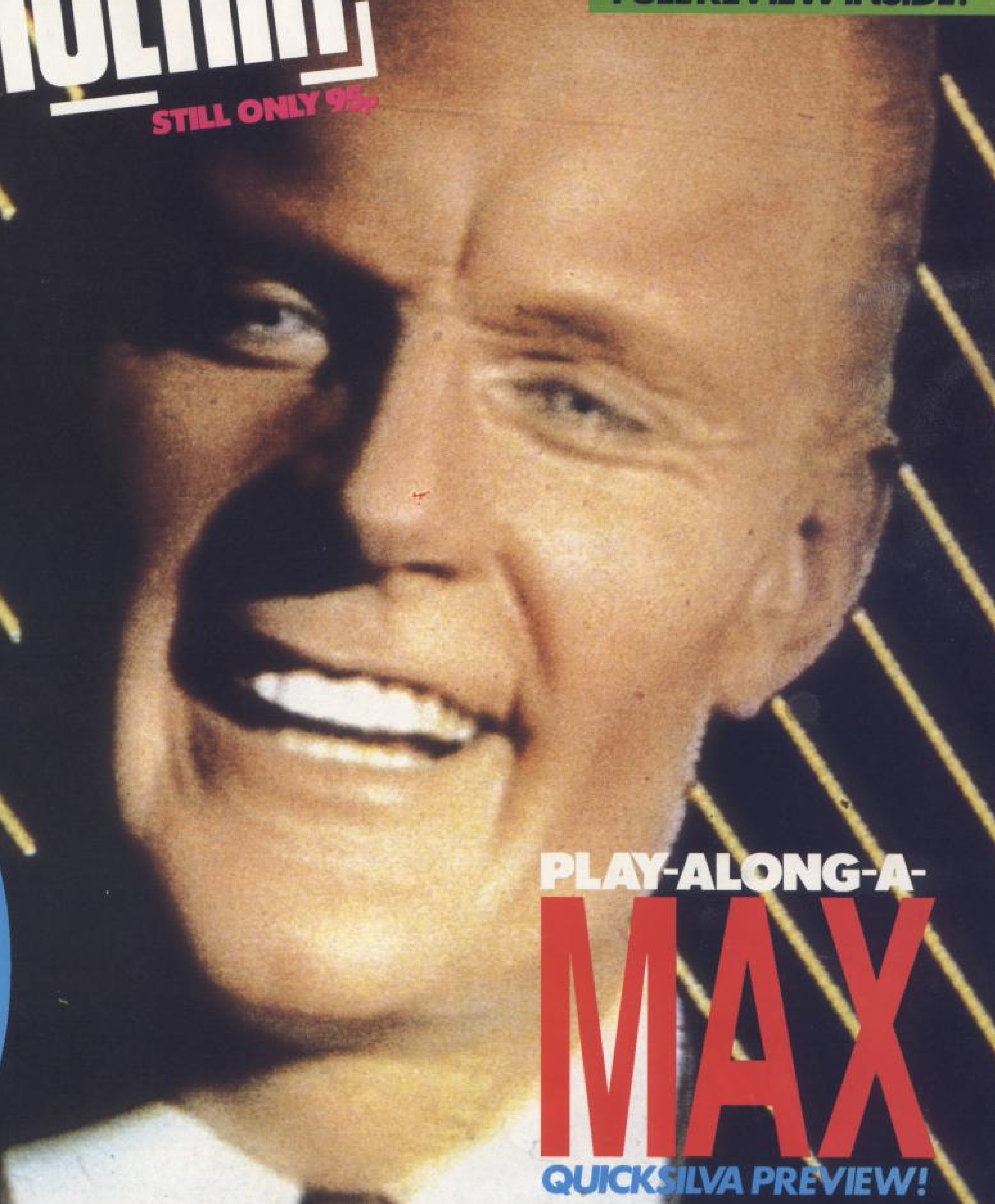
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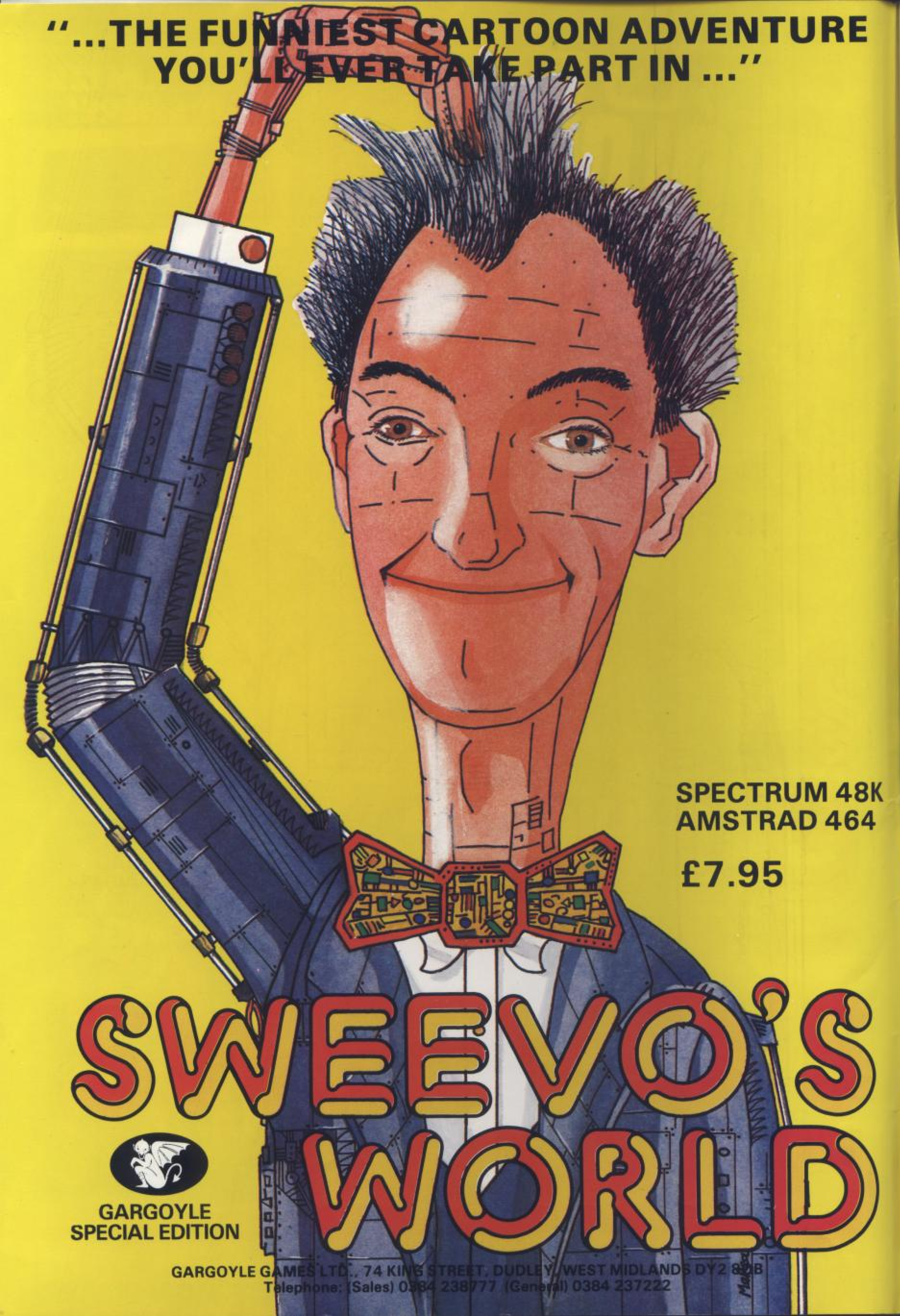


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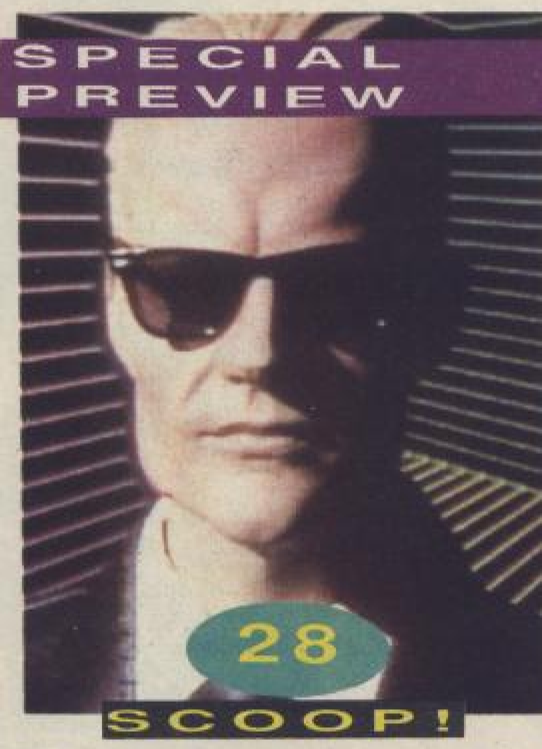


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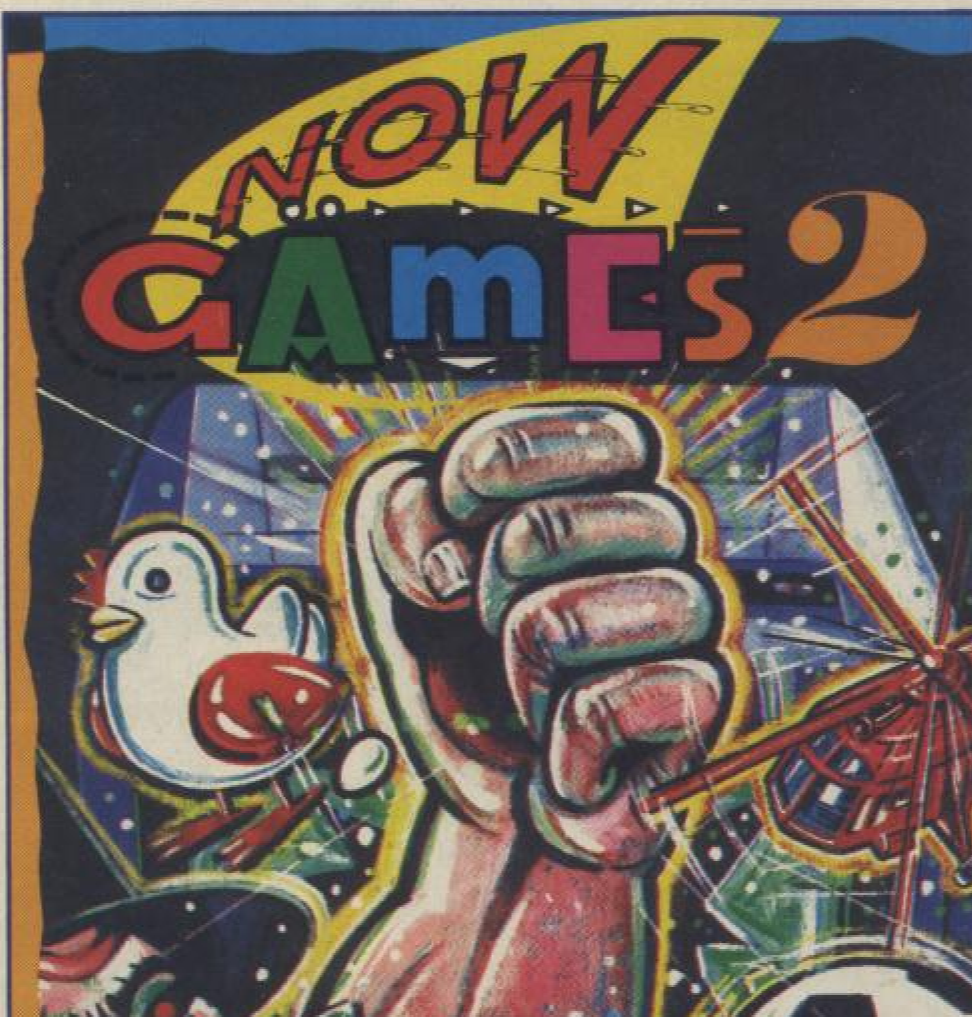
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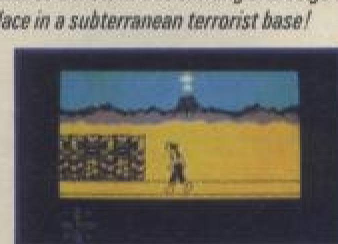
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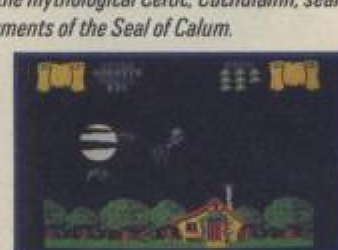




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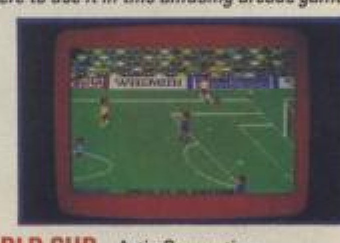
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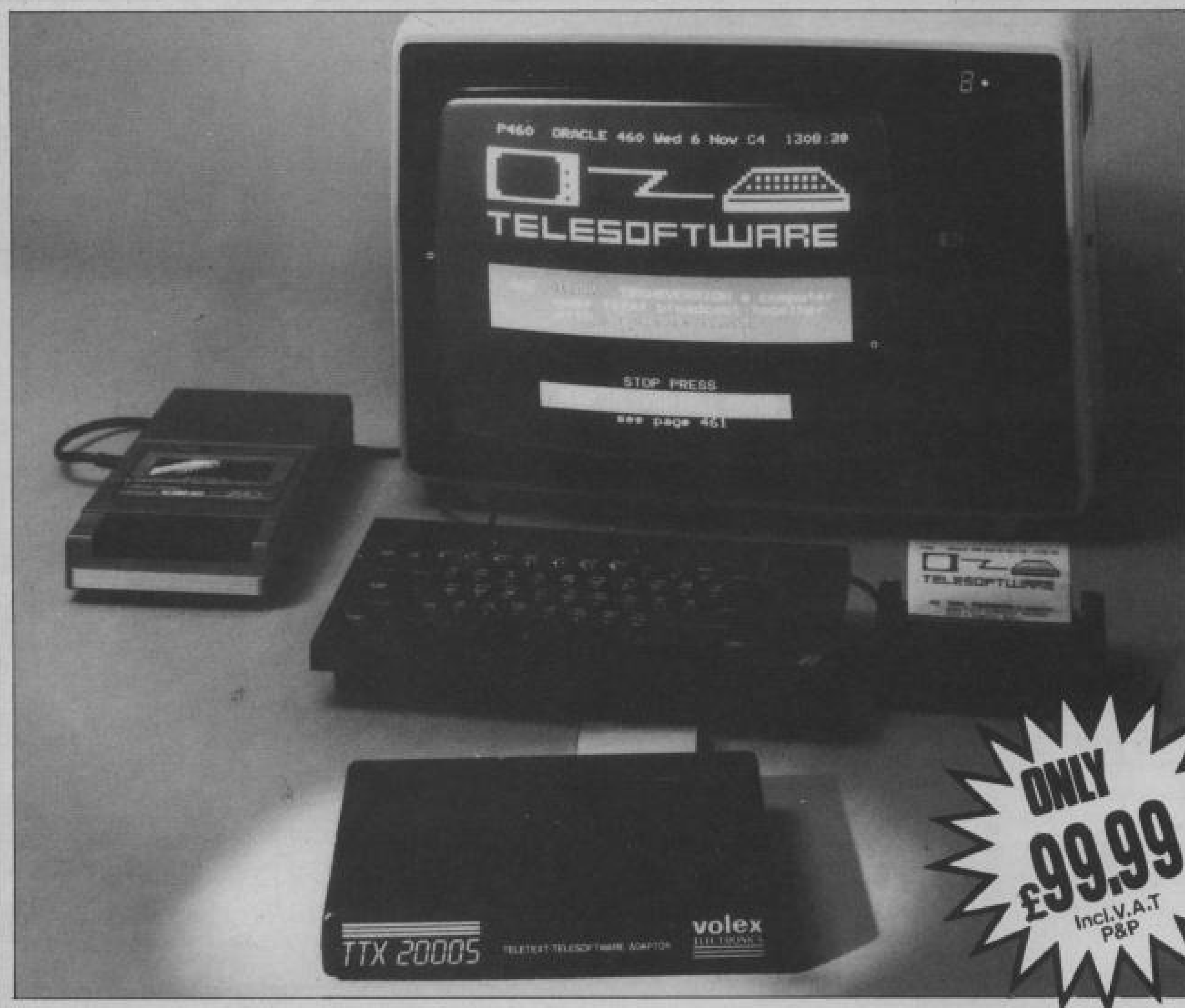
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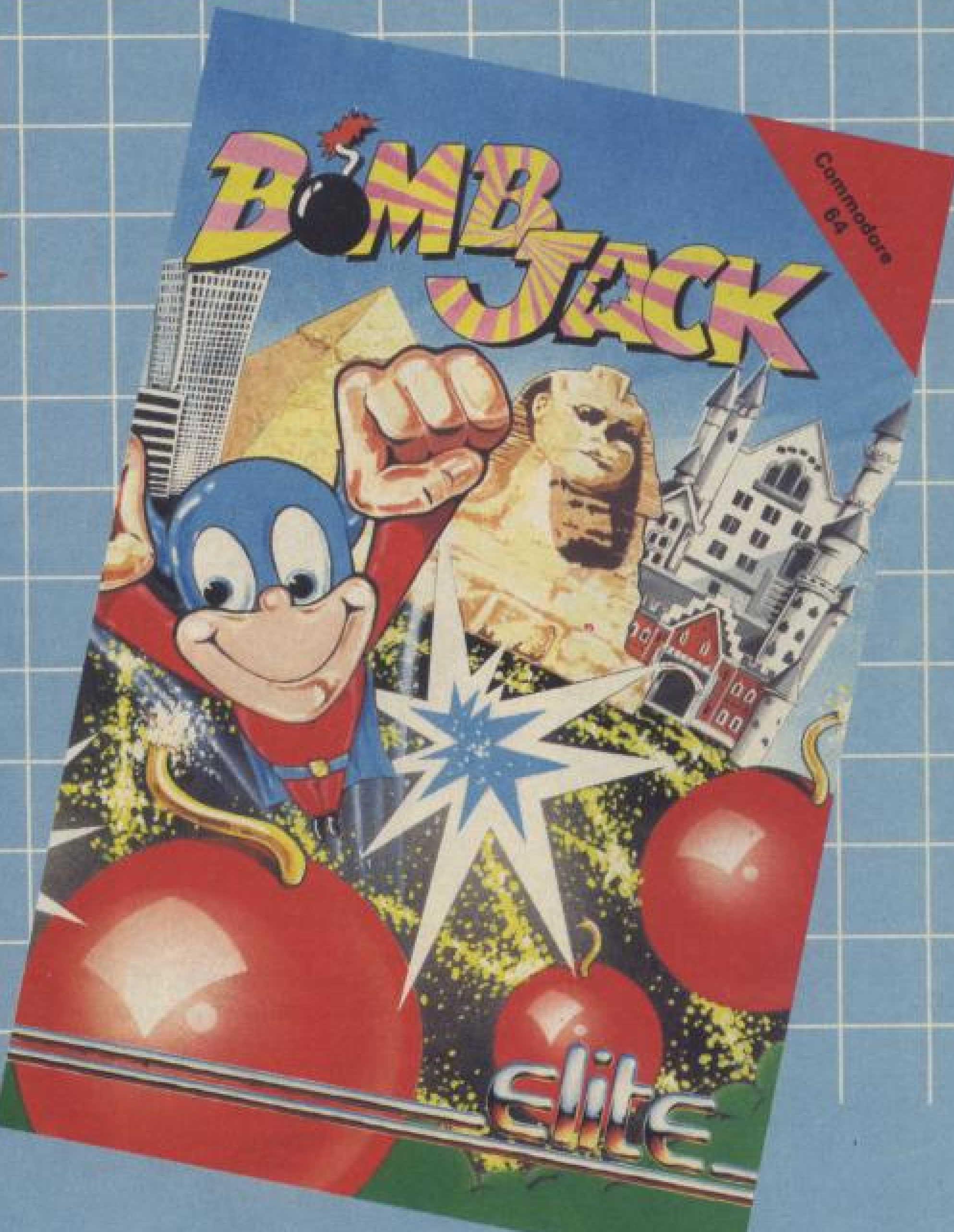
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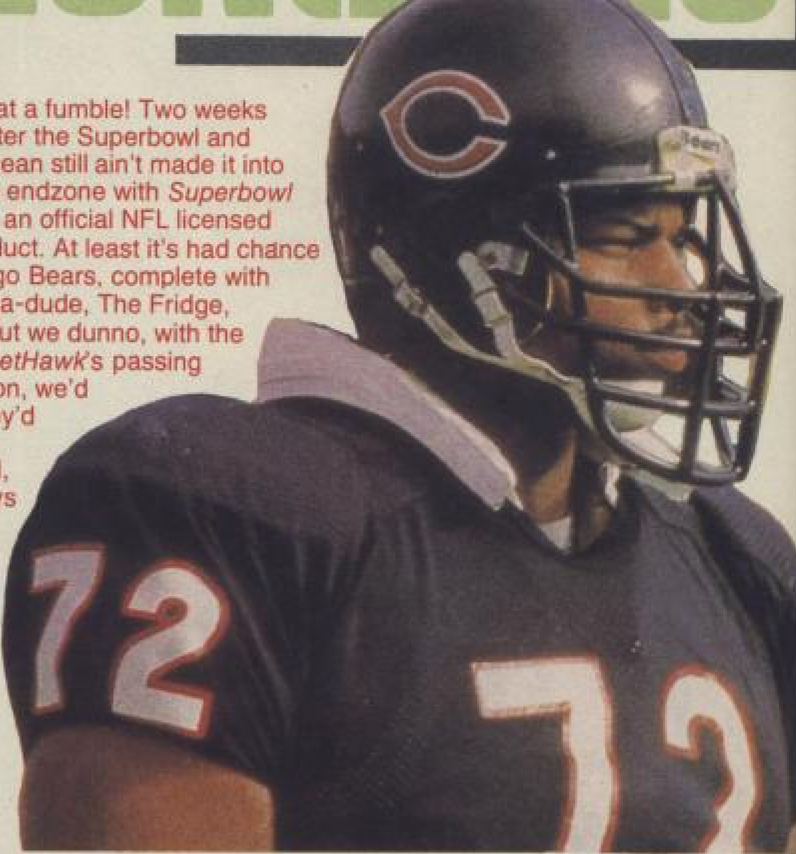
Access

fRONtLiNES



Copper load of this! It's the Argus Old Bill come to feel our collar. They're out to arrest us with The Force, *the new game about the boys in blue. P'raps they think a stretch in the slammer is the only way they're going to get us to play the game.*

What a fumble! Two weeks after the Superbowl and Ocean still ain't made it into the endzone with *Superbowl '86*, an official NFL licensed product. At least it's had chance to put the Chicago Bears, complete with the coolest, mega-dude, The Fridge, into the game. But we dunno, with the Manchester *StreetHawk*'s passing record this season, we'd have thought they'd side with the Patriots. Oh, and, yeah, Ocean says it's coming real soon now...



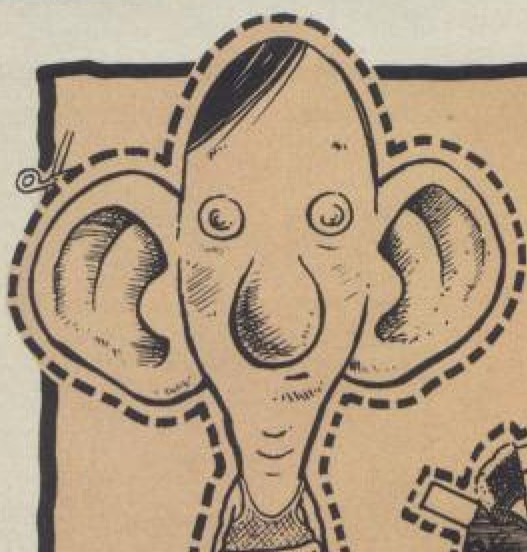
SECSY!

A new software company has just been set up and its ever so ever so clever 'cos it's got a really trick name that nobody's ever thought of before — SECS. New products coming soon.

The follow-up to *Starstrike* from Real Time Software is out. *Starstrike II* is another 3-D space shoot 'em up and it sports the same stunning colour graphics.



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Wanna be the envy of all your friends? A hip, cool dude and into the groove? Don't bother reading any further then! But, for the enlightened few who'd rather be self-made Trainspotters, have we got just the job for you mateys!

A-have-a-complete-change-of-image-and-look-a-real-plonker-do-it-yourself-Trainspotter-kit! And all you need is a not-so-steady hand, a tube of evo-stick, an old cornflakes packet and a pair of scissors. Wow!

It's dead easy. You only need an IQ of about 5, so even the guys on *Blue Peter* could do it. First take a pair of scissors (make sure you've got an adult present for this bit) and cut around the mega-hunky Spectrum owner below. Stick him on a bit of cardboard to make him even more butch and then cut out all his bits — we mean his clothes and equipment (no sniggering at the back). Now dress him in his favourite Trainspotter gear — you can even mix and match to make him look even more of a mess. Go on — try it. Now you're back on the right tracks — completely loco!





Tony Sleep

T'zer 'thunder thighs, but they don't beat Madonna's' Maughan, an unidentified flying person and a Spectrum user look a bunch of right wallies in Hyde Park on a simply swiltering day. And all for the good of Your Sinclair. Why? Find out later...



WE SURRENDER!

Flashback to *YS* issue 1 and the *Droid Wars* challenge. Well, it may not be as big as the Superbowl but a big hand for all those who entered. Talking of big hands one might come in useful for slippery Jim Grimwood of London who sent in a version of the program that runs three times faster than Max's original. Well Jim, looks like you'll be moving into Max's old job.

Anyway after a lot of violence, Clay Willing's God Droid (returned from his encounter with Sam Slade eh?) smashed his way to the final to take on Robert Walker's heavy-metal DOR to give Clay the title, the cartoon and, of course, the promised tickets to the outer-worlds to see the games. Ah yes... the tickets to the outer worlds. Space travel and all that. Could we have a word with you Clay?



And now for the 'Golden Turkey Award'! This goes to Global Software for its Golden Turkey Productions based on the world's worst movies book.

Attack Of The Killer Tomatoes takes place in a tomato processing plant and you play the part of Wimp Plasbott — spooky! The tomatoes start to mutate and turn into killer tomatoes — even spookier! It's your job to kill 'em off and turn 'em into Bloody Marys. Sounds pur-retty divvy to us!



Activision's at it again. More new games for the Spectrum. *Rescue On Fractalus* has been converted and should be out pur-eety soon. There's also *The Eidolon* from Lucas Film Games. You've discovered the eccentric scientist Dr Josef Vincent Agon and his fantastic machine — a machine that explores the id. You're placed in a whole series of underground caves filled with fireballs and monsters — Puffer Birds, Biter Birds, Greps and Bottlenecks. You've got to discover the secrets of the fireballs and figure out how they can be used to subdue the creatures.



have you seen this month's poster map of Sweevo's World yet? Nip off and have a quick butchers then. Back? Ber-rilliant or what? Bet you thought it was done by a couple of reeeeally famous artists who get to see lots of naked ladies and make a lot of Manet?

Wrong! It was in fact executed (technical term that) by two not nearly so famous YS readers who wouldn't dream of consorting with that sort of lady (We can all dream! Ed) and who aren't just interested in personal Gainsborough. Not nearly so famous until now that is. At this very moment thousands of other YS readers are rushing to pin their poster on the nearest available blank wall.

And the moral of this story is — if you can map new games and you can draw as well as Mischa and Stephen then you too could have your work treasured by thousands. And even if you're not too brill with the brush we may still turn your map into a poster and plaster your name all over it. Rush your cartographic masterpieces to The Map Room, YS, 14 Rathbone Place, London W1P 1DE. You've got nothing Toulouse.

T'zers...

You're not getting away that easily. Come back... Will you come back if I tell you that I've got simply heaps of juicy news for you this month. New games, gossip and a lorra-lorra-laffs. Thought that'd make you change your mind. Let's start with something that didn't happen.

Notice anything missing in this issues Spot-The-Balls-Up competition — apart from the ball stupid. Yeah. Activisions own Andrew 'I'm really hip and trendy and don't know a thing about computers' Wright. We'd heard that getting Ands to take his trousers off would be no bother at all — he's done it enough times before. But no. Andy wouldn't spare us his blushes and more to the point had no intention of donning a pair of shorts, not even for the **YS** team. Maybe he didn't want to put me to shame?

Talking of Activision it's got quite a few games up its sleeve for later releases this year. **Koronis Rift**, a Commodore (boo, hiss, boo) conversion should be out in May/June and its also converting **On-Court Tennis**. Advantage to Activision.

Meanwhile megahip CRL has gone completely Spandau Ballet. It's taken a new label under its wing called Nu Wave that'll release all its weirdo titles. Where does that leave CRL I ask myself. First Nu game'll be **ID** and it's all about Id who's completely helpless and needs you to discover where he comes from and his sordid past. But you've gotta get him to trust you first and that'll take time and a lot of conversation. And you'd better not make any Freudian slips or I'll take you over. Mel Croucher of Automata had a hand in writing it so it's bound to be weird. See for yourself 'cos it's reviewed this issue. Sounds a bit ID-iotic to me.

Here's something heavy. Those *boys* at Odin have a few tricks up their sleeves. **Icups**, on the Thor label, should be out pretty soon and **Kimera** will follow it. Hic!

BADGER US FOR A BADGE

The YS Way

Well, you've got to be a YS reader and you've got to have a letter printed in *Your Sinclair*. It's that easy. It doesn't even have to be in the Letters pages — letters anywhere in the mag will qualify. For this measly outlay in effort you'll receive an exclusive super-duper, mega-amazing, fantastico, splendiferous (*That's enough adjectives! Ed*) enamelled metal badge with the *Your Sinclair* logo emblazoned across it in tasteful red and silver. And all it costs is a 17p stamp and a portion of your wit and wisdom.

The Blue Peter Way

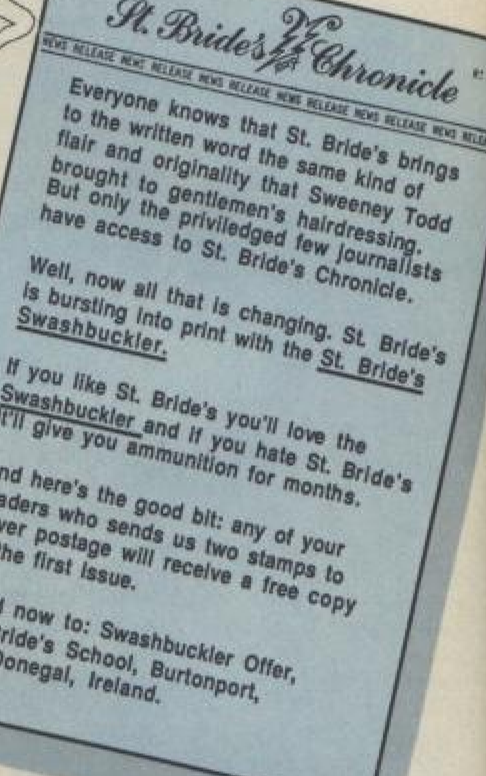
For all you lazy, slothish, apathetic, comatosed, stagnant layabouts who can't be bothered to put pen to paper and write in to YS here's what you do. First you've got to clip out the paper version of the YS badge and stick it on a bit of cardboard. Then trim the outside and colour it in — first with a red pen and then colour the letters with a silver one. Next get a safety pin (be careful) and attach it to the back of the badge with some double-sided sticky tape — and there you have it — a *Blue Peter* version of the YS badge. What a Palaver!



Eeek! It's a mouse. They seem to be multiplying like rabbits. Kempston's Spectrum Mouse and Interface comes complete with a copy of OCP's *Art Studio* and costs £69.95.

Gather round girls. It's a letter from those refeened young ladies at St Bride's School. They've sent word that they want to share their secrets with us. Jolly japes in the dorm, what? The only blow is that the offer's also open to the boys, the rotters. Boo!





St. Bride's Chronicle

NEWS RELEASE NEWS RELEASE NEWS RELEASE NEWS RELEASE NEWS RELEASE NEWS RELEASE

Everyone knows that St. Bride's brings to the written word the same kind of flair and originality that Sweeney Todd brought to gentlemen's hairdressing. But only the priviledged few journalists have access to St. Bride's Chronicle.

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Send now to: Swashbuckler Offer, St. Bride's School, Burtonport, Co. Donegal, Ireland.

HIPPA-DEE-DOO-DA



Awlrighty! And now on FTH news-and-reviews media, we bring you a hot-hot-hot report from the Zee-X Microfair — your host is little ol' Troubleshootin' Pee-dur...

Do they mean me? I hope not! Still, I have been to the Microfair in the heart of London Town. It's a traditional time for the natives when parents and cheque books are dragged into a crowded, bustling hall to spy on all the latest hot releases on the software and hardware scene.

As the Microfair can no longer be called a major event in the computer exhibitions calendar, no-one really expects to see the mega launches there — but, as always, one or two manufacturers save the show for something special.

For the Speccy, *Starstrike II* stood out and *Tasword III* was up and nearly problem free but the Saga IV keyboard didn't quite make it. And just to complete the set, *V* wasn't there either.

On the QL front, Datalink Systems launched an arcade game called *3D Slime*, a sort of several level *Pacman*. You play a friendly lump of green slime chomping its way through purple pyramids — Domestos capsules? All good clean fun with a very neat feature built in for the working classes. Simply press F5 when the boss arrives and you're greeted with a pseudo-spreadsheet screen. Course, it's all a bit topsy-turvey here in the dungeons of Castle Rathbone. When the Ed arrives I have to leave off having fun with figures and get back to playing the game!

Cheetah provided plenty of aggravation of the ear-lobes with its SpecDrum system blaring out at several trillion decibels. Funny how all the tunes sounded just like a Village People album, ie all the same. Perhaps I'm growing old? *(Who're the Village People, Uncle Peter? Ed)* Pretty impressive piece of hardware anyway.

Just before the doors opened, the GLC was out in force spraying exhibitors' stands to make them fireproof. While Sinclair Research was getting the greenfly treatment, one cynic was overheard to say "Well, maybe that'll cure the bugs in the machines." Hmmm, but it'll take more than salty water!

Shame that so few software houses put in an appearance. Whither Melbourne House, whither US Gold, whither Ocean, whither Ariolasoft? Still the show won't wither completely away while the small hardware/software companies, distributors and dealers turn up. And never forget the highlight of the show — the *YS* stand, of course!

And that just about wraps up this show for another month. Same time, same column, different accent next issue. Be there or be quadrangular...

TROUBLESHOOTIN' PEE-DUR

ARGY BARGY



Sick, sick and sicker. PSS has really excelled itself this time. Not content with playing at atomic war it's now released Falklands 82. *Yes you too can experience the thrill of sinking the Belgrano, going down on the Sheffield and generally creating as much of an Argie-bargie as possible. The 'fun' takes place between 21st May and June 15th on the northern part of East Falkland Island and you control the British Army. There are five levels of play, varying weather conditions (rain, heavy rain and torrential rain?), realistic terrain conditions (mud, thick mud and glorious mud?) and a full range of command options — fire, fire and fire! One to stick up its Junta, methinks.*

FRONTLINES





Gore blimey, whatever next? Mark 'I like dressing up in funny clothes' Strachan and Dominic 'No publicity purlease, where's the camera?' Wheatley offer their sincere apologies to all those people who were offended by the horrific cover on *Friday 13th*. In fact they're so sorry that they're changing the design of the cover so that it's more "wholesome". Jason slicing up some poor old dear tucking into a bowl of Bran Buds, perhaps?



Ernieware 'I drive the fastest milkcart in the Netherlands' Productions is proud to announce the forthcoming release of its latest arcade game, *Blockbusters*. On the other side of the tape there's a graphics program called *Back To The Graphics* so here's something that's been drawn with it.

We've been hearing some fiery tales from Firebird. It's to bring out a new bundle of fun called The Comet Game — halleytosis or what? The action's set around that comet — only this time it's full of germs. You play a human(boring) but the aim is really unique — you've got to save the world from impending destruction (oh well). Interested? Have a look at our zippy compo in this issue — and walk off with a coffee machine! (Among other things).

Win a do-it-yourself-T-shirt-and-*Skyfox*-transfer-set from Ariolasoft in our t'riffic compo. What's the catch eh? There ain't one! All you've gotta do is tell us whether you think Basil Brush is a relative of the *Skyfox*. Boom boom! Sorry, only pulling your leg. What you've really got to do is answer this easy-peasy question. What's a female fox called?

a) A vixen
b) Bitch (Ooh you...)
c) Samantha

And if you're one of the lucky winners here's what you do... Take a look at Fig 1. Thought you'd be phased by that clean white T-shirt. Now cast your eyes on Fig 2, wow a *Skyfox* Transfer. Place Fig 2 on Fig 1 and then take Fig 3 and place on Fig 2. Then move Fig 3 up and down Fig 2 but mind you don't burn yourself on Fig 3. Hey presto and you've got Fig 4! Easy ain't it.

If you want to be on the Skyfox transfer list, put your answer on a postcard or the back of an envelope and send it to You Can't Fox Me Compo, YS, 14 Rathbone Place, London W1P 1DE.



Fig 1



Fig 2



Fig 3



Fig 4

Ummmm, err what else is happening. Oh, yes. Those red faced boys at Domark are making plans for a new James Bond game that'll feature a recent James Bond film. Which one, I don't know. Could be **Octopussy**, or maybe **Never Say Never Again**. You'll just have to wait and see.

Looks like the Wild Women Of Wonga are making a comeback in US Gold's new arcade adventure **Amazon Women**. Let's hope its got a somewhat stronger plot.

Who Dares Wins... And Alligata certainly did in its fight to bring out a game of the same name. **Who Dares Wins**'ll be out by the time you've read this.

And now for a whodunnit from Datasoft. News is it's bringing out **221b Baker Street**, a fantasy role-playing game that takes place on the streets of London. You've gotta solve a lot of cases in true Sherlock style but I'm telling you the plot. Datasoft is also releasing **Crosscheck** — a crossword game, **Mind Pursuit** — a computerised Trivial Pursuit and possibly **Pole Position II**. It's all elementary my dear Datasoft.

Wot's this then? Level 9's new adventure game, **The Price Of Magic**. The aim is to progress from the magician's apprentice to Arch Mage and you've got 18 magic spells to do so. Now that's magic!

Good news for **Scooby Doo** fans. After being written, scrapped, rewritten and scrapped again Elite says it's being written again by schhhhhhh you know who! It's also releasing **Bombjack**, an arcade extravaganza, and **Ghosts And Goblins** from the people who brought you **Commando**. At least that's not a shaggy dog story.

Hey, listen to this, it's really hot. Saga is bringing out another keyboard, yup the Saga 4. But this one is infrared — wow. Maybe you can use it to cook your Sunday roast.

Talking of Sagas, the ongoing **YS** office romance between Gwyn Hughes and Rachael Smith is now definitely off... sorry it's not it's on... oh no it's...

Teresa Maughan

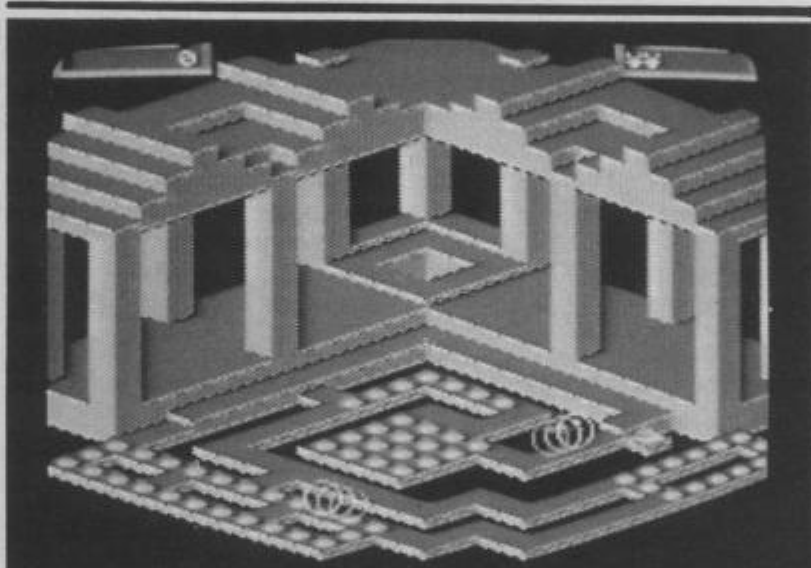
QL NEWS

Microdeal is really pleased with the game it's working on at the moment. *Aquanaut 471* is an adventure that also includes some amazing arcade sequences that you have to get through so that you can carry on. Jenny Poke from Microdeal said, "This new game is fantastic and we're really, really pleased. It'll knock you for six when it comes out. We're really excited about it."

Fancy something free? Well, read on . . . Cumana has brought out a 42 page disk drive guide that describes its floppy disk drive operating system for the QL. The QL user is taken on a step by step journey through operations and functions, including formatting, connection, making a back-up disk, disk filing, data storage and 40/80 track theory. For your freebie write to Cumana at Pines Trading Estate, Broad Street, Guildford, Surrey G3 3BH.

Hey, wow. Sinclair's even had time to bring out two new games for the QL even though it's been rushing to get the Spectrum 128 out before 1999. (More of that later on this issue!) *QL Cuboids* is a platforms game that takes place in a city plagued by not one, not two, but four species of extremely dangerous monsters. And all you've got to arm yourself with is a pneumatic hammer. Hammer? Well, it's actually a drill, so you can drill holes to trap the monsters in, and a hammer to bash their brains out. Yummy.

QL Jabber's not what you might think. It's not a Star Wars monster game and it's not a financial planning game. It's a good ol'shoot'em up blaster set in space. It all takes place in the United Solar Spice Space Pilot Training and Disease Control Centre. Wow, whatta mouthful! You take on the role of an antibiotic full of little antibodies that you can shoot at those 'orrible bacteria and viruses. Both games will cost £9.95 and are available now.



He slimed me!

Yeuch! Fungus The Bogeyman or what? Whatever it is, it's really slimy and called, wait for it, *3D Slime*. You play a manky green blob of slime (huey) that has to munch his way through little piles of antimatter whilst avoiding various mutant creatures. Slithereey! It normally costs £12.95 but for *Your Sinclair* readers Datalink is offering it at a snip at £8.95. All you've got to do to get your hands on a copy is fill in the coupon below and send it, with a cheque or postal order, to Datalink Systems, Glangors, Ynslas, Dyfed SY24 5JU.

Please send me..........copies of *3D Slime*. I enclose a cheque/ postal order for £.................made payable to Datalink Systems.

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LETTERS

YOUR SINCLAIR, 14, RATHBONE PLACE LONDON W1P 1DE

The writer of the Star Letter will receive a fabulous bundle of software.

TOADY

Look, in YS 2 the name of the game is Cosmic Wartoad not Cosmic Wartones. Either get it right or sack Teresa Maughan. This is your last warning. Next time I'll send 'The Boys' round to rearrange your typewriter which'll be very painful and probably stain the carpet.

Snaggletooth II alias
Mark Chambers
Oldham, Lancs

You're right. This was a serious dereliction of duty on T'zers part. Come here Maughan. You're fired. Don't try and get round me with your pathetic excuses about not being able to read and write. And stop getting all excited about The Boys coming round. Out! That's better — there's nothing like giving someone the big E at the beginning of the Letters page! **Ed**

ED BANGER

Hmmm...not very clever. I'm just sitting here waiting for my mum to buy me the mega, incredible, humungus (creep, crawl) YS MegaBasic for my Christmas present and she says, "Who do I make the cheque out to?"

Hmmm...I dunno, it doesn't say does it. Not very clever. Everybody else tells us. Kerrang (the greatest rock rag etc) says who. Iron Maiden Fan Club order forms tell us. But YS can't be bothered.

Do you want us to buy MegaBasic or is this just a (not very) clever ploy to keep us from seeing it? Does Mega-Basic exist or is it one of Ed's fantasies?

Tim Eveleigh
Addiscombe, Surrey.

Course it exists — my fantasies might be a bit basic but they're not MegaBasic. Well, only the one about the ... but this isn't the place to go into that one. But you're right — we've made a right old kerrang of ourselves this time. We thought that all YS readers would've sussed that they had to pay their cheques to Sportscene Specialist Press. But we didn't reckon with the Heavy Metal Effect — there's one brained every minute.

Still, it is an honour to hear from the member of the Iron Maiden Fan Club. Perhaps it'll encourage the only member of the Slade Fan Club to write in — and I can put him in touch with a good psychiatrist.

And what on earth does 'humungus' mean? Sounds like a nasty disease you catch off sick Bumpries. That'll teach you to wash your hair more often. **Ed**

SPECIAL AGENT

Dear "The Boss"
God are you in trouble, man! As general secretary of the "Letchworth is a nice place" Society, I must ask you to retract what you said or we will take action. (Ref D Willmott. YS ish 2.)

Everyone knows that Letchworth is the real capital of England and not that riverside village London. I mean, we even had the first couple of roundabouts in the world!

Dick Barton
Letchworth

PS If the vendetta doesn't stop, you could have a nasty accident, comprendo?

I always knew that Letchworth must've contributed something to the sum of human happiness but little did I suspect it was roundabouts. Now I know why the place drives me round the bend — and then round again... **Ed**

CABINET RESHUFFLE

Here's some advice for restructuring the YS team.

1) As the Ed is the funniest man in the country (though I don't live in Peru) he should go into television. *(Move over Wogan, here I come. Ed)* My personal recommendation is the Test Card. *(Grrrr...Ed)*
2) This would leave a blank at the top (though there always has been). I think it should be either Pete Shaw or Roland Rat. *(Give me the Rat any day. Ed)*
3) Give the Art Editor a pay rise — his work is very good. *(It's okay, I can put you in touch with a really good optician! Ed)*
4) Get Pete Shaw to have a facelift. *(Pass the forklift truck. Ed).* Iolo Davidson has obviously seen Pete in the flesh. Look at his photo!

Colin Read (86)
(insulter extraordinaire)
St Helens, Merseyside

And here's how I'm going to restructure your fizog! **Ed**

BUMPED OFF

I'm writing to complain. Well, not exactly complain but just to say something. In *It's A Stick Up* in YS 2 you printed a table showing which joystick came out on top in Chris Somerville's *Second Opinion* program from Your Spectrum 19. Huh, this'll really mislead new Spectrum owners into thinking that the Command Control joystick from Wico/CGL and the Formula II from Kempston are the best. Now they may be good but in my opinion the joystick that beats them all is the Formula 1, with Le Stick second and the Quickshot II third.

But I think I know why the Formula 1 didn't get anywhere. It's because the testers probably held it like the Quickshot. *Wrong!* You only need to use an index finger and thumb and you'll get smashing results.

And does Noel have a strong arm or is it controlled by a piece of string? Is all the power from his diverted to his nose when he sneezes? Has he got something against Quickshot IIs? Does his hand have hosepipes connected? All these accusations are suspiciously true — just take a look at some of his comments. "The length of the shaft tires your arm out too quickly" (Quickshot II). "The shaft's too spindly and I reckon it'll break if you sneeze on it" (Gunshot I). "Looks too much like a Quickshot II for my liking" (Gunshot I). And "The grip gets as sweaty as a Bumpry's armpit" (Gunshot I).

What is a Bumpry?

Paul Chaney
Bletchley, Milton Keynes

What? How can you sit there — stand up while I'm writing an Ed's comment — and talk with authority about joysticks when you don't even know what a Bumpry is? I ask you readers, whose word would you trust — three highly trained joystick testers who all know what a Bumpry is or the 'opinion', and these things are all subjective, of someone from Milton Keynes? Not that I've got anything against Milton Keynes but you don't see many Bumpries around there, if you see what I mean. **Ed** *If only all cities were like that!* **T.P.**

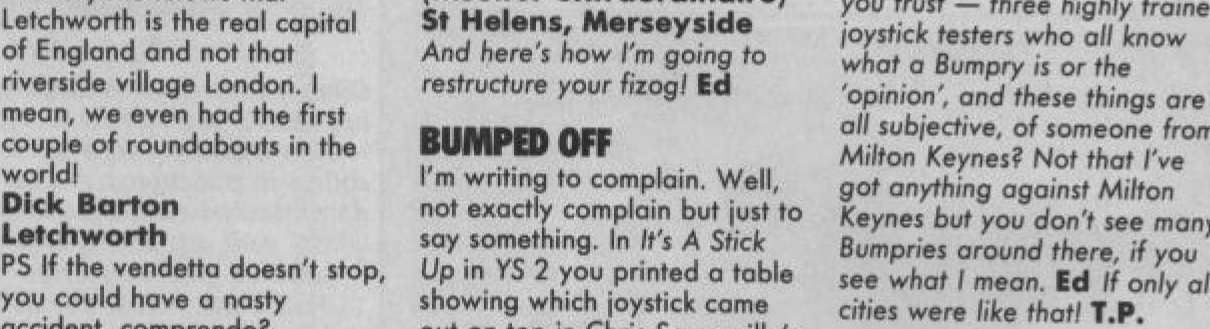
HO, HO, HO

Hurdie YS!
Hurdie hurdie YS 1 1986, hurdie hurdie Teresa Maughan, hurdie hurdie ho Jangeborg, "hurdie, hurdie ho" (hurdie!!!). Hurdie hurdie hurdie ho. Hurdie ho!

Ho 22, Hurdie Facts, Carl Howes hurdie ho ho PRINT hurdie hurdie, ho printer. OPEN hash 2, "p" hurdie

DOODLEBUGS

Keep on doodling — it's a doddle! Send your cartoons to Doodlebugs, YS, 14 Rathbone Place, London W1P 1DE. There's a prize of a new game for each cartoon printed.



This month's cartoon is by Speccy-lover (?) Shaun Wilcock of Dewsbury.

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LETTERS

hurdie Spectrum, Interface 1 hurdie ho Interface 1!

Hurdie Trainspotter ho, ho hurdie ho 115: hurdie Digi'T'ape hurdie, hurdie *Your Spectrum*, hurdie *Your Sinclair*! Ho, ho, ho (2 hurdie!)

Mats E Sjoblom
Hagersten, Sweden

PS Hurdie hurdie Alison Hjul hurdie? "Hjul" ho "wheel" ho Svenska!

Hurdie hurdie Mats Sjoblom hurdie? "Sjoblom" ho "naff all" ho English. Hurdie ho Svenska ho totally unpronouncable hurdie ho! **Ed**

GREAT MINDS...

I read with interest the letter from S G Wylie about the Hex keypad in *YS* 2. My company is about to release a Hex keypad in the latter part of February this year. We haven't yet fixed a price for the unit but if S G Wylie or anyone else for that matter would like to get in touch with me I'll quote a price then.

Kevin Coverdale
System 7 Electronics,
664 Anlaby High Road,
Hull, N Humberside
HU3 6UZ.

Bang goes my chance of making a fortune on that idea.
Troubleshootin' Pete

WRATH OF KEITH

Many moons ago when the earth was still young (well, about six months ago anyway), I wrote to your estimable magazine asking for help with a game I was then attempting to play.

The game was *Wrath Of Magra* and my request was published. I even received lots of advice from readers who'd kindly taken the trouble to write to me.

But someone, somewhere (*Your Sinclair*'s editor's hovel maybe) has rendered me speechless. My request for help has yet again been printed by the nameless nerd who scribes your Death's Door feature.

Is this a ploy to swindle readers out of their 17p postage stamps or have you just dropped a brick?

Please assure your readers that I am not a dumbo who needs constant assistance on the same game and please send me the head of the idiot who re-inserted the request (if head is not available I'll settle for a Porsche).

Keith R Hill
Bognor Regis, W Sussex

Ow! Flippin' brick. My first reaction was to send you the head of said idiot but then I realised that it would've been a bit of a dead loss. Well, he's dead already! So, instead I'm posting you a Porsche, piece by piece — starting with the inside of the ashtray! **Ed.**

TRAINSPOTTER AWARD



Hello, hello, hello. A policeman's lot is not a happy one. So to break the futility of all this crime fighting I happened to flick through the pages of *YS* 2. I had occasion to turn to page 34 whereupon I glanced at three mug shots under the title Hex's Heroes. I immediately recognised the icy looking character on the left as being none other than the slipperiest fridge thief ever to grace a garden. Snowy White, the con snowman of Westbury-on-Trym.

The centre mug is not that of Per Holm the Swedish second cousin of Sherlock — that much is elementary. No, it is in fact the infamous Jeroen Molenach from the Nether regions.

The third photo is indeed Master Holm the half mad organist come hairdresser come and touch my Van der Graff generator. He who has been known to smile when having his photo taken however much it hurts. It is obviously something to do with his pole position or an exploding fist. There... I rest my case for being awarded a Trainspotter Award. Evening all!

Ian Evenett
Tottenham, London

It's a fair cop, guv, I'll come quietly. But before you drag me kicking and screaming to the cells perhaps you'd like to take a look at this much coveted Trainspotter Award. Fetching a bit on the black market, these are! Let's not call it bribery, more a just reward. Ow, those handcuffs hurt... **Ed**

Have you seen the new version of *Elite*? You know, the one with the score up the top, with the upside down letters. What's this I hear? No, surely *YS* couldn't make a mistake, could they? Quick Sid, pass the letters we cut out of (*Another magazine that's only really fit for a sesh with the scissors! Ed*). That's right. T . . . R. . . A . . .

TRaiN
SpOTtER

Award Purrrrlease (if it's not too much trouble).

If you still don't know what I mean take a look at The YS Megagame Challenge, page 4. Please put me out of my misery by sending me a beautiful Trainspotter Award.

Rob Hoar
Hemel Hempstead, Herts

Q. What's Gollum's favourite pop group?
A. The Stranglers!

For a joke like that you deserve to be put out of your misery. Pass the silk cord, Pete, we have another neck for the noose. Things could've been so different if we'd had a beautiful Trainspotter Award but as it is we've only got these tatty ones.. **Ed**

RAINSPOTTER AWARD

I hough I would wrie in and see if I could successfully have a leer published a my firs aemp — everybody else seems o have wrien a leas wice.

Anyway, in issue 2 page 72 here was a missing capial ' ' a he sar of he review of *Beach Head II*. I hereby claim my rainspoer award.

You will noice ha I neiher creep nor crawl, being of he belief ha a superior being such as yourself makes he decision abou he award no on he quaniy of praise deservedly heaped upon your magazine and yourself (*Specially me. Ed*) bu on he qualiy of he leer.

Graham Deaves
Dunsable, Beds

Dirty ol' man! I'm not having any leers in this magazine. Next thing you know, we'll be up there on the top shelf along with all those 'other' magazines. By the way isn't it about time you got yourself a new typewriter? Your address has come out as Dunsable. You can't fool me — you must be one of the Unstable lot? Still, you are the first winner of our new Rainspoer Award. Let's just hope it isn't catching. **Ed**

LOCKING ON . . .

On page 22 of the 'Elite Spacetraders' Flight Training Manual' under the heading, 'Docking Procedure' appears the statement "Docking with a Coriolis space station is never easy unless the ship is equipped with an automatic docking computer."

Having spent many an hour, bleary eyed, seated at a Cobra Mk III visual display console (cleverly disguised as a prehistoric black and white TV set), playing the above-mentioned game, I happened to fall upon a v. useful bug.

In the light of my discovery I feel that the following slight amendment should be made to page 22:

"Docking with a Coriolis space station is an absolute doddle (hands tied behind back, blindfolded, Speccy stuffed up left nostril etc . . .) even without a docking computer."

Revised docking procedure:

1) Select the planet that you wish to visit, using the local chart.
2) Launch your Cobra Mk III but do not hyperspace.
3) Continue in a straight line away from the space station for several seconds, then slow down.
4) Turn through 180 degrees, until the entrance to the space station is in the centre of your sights.
5) Accelerate to full velocity.
6) A few moments before impact, press the hyperspace button.

You'll find yourself safely docked at your destination space station.

Of course, if you use this method of trading, you need never again encounter any enemy spacecraft. Yes, that means no more fumbling madly for the 'ship identification chart' and no more watching helplessly as your energy banks drain (not unlike the Editor's witticisms) into the endless vacuum of space.

Severian (President of 'Legalise Lenslok')
Aberystwyth, Dyfed

It looks as though Elite may have as many bugs as a Bumpry's bicep but at least you managed to load the game — even if you did have to stuff your Speccy up your left nostril. Perhaps that's where the next couple of readers are going wrong . . .

I'm writing to complain about the Lenslok that came with *Elite*. Apart from stopping me enjoying the game, I find it

LETTERS

almost impossible to get the OK characters in the first place.

Also, the loading causes a problem. This morning I had to reload *Elite* seven times due to the tape and the Lenslok. I received *Elite* for Christmas and I've only managed to play it around three times.

Please, could you tell me if any other readers have written in to complain. When I have played the game it seems very good. What a way to ruin a decent game, Firebird!

Andrew Challis
Colchester, Essex
You are not alone . . .

I'm writing about the Lenslok security device on *Elite*. I got a copy of the game as a Christmas present but so far I've been unable to get past the security screens. This is very annoying and frustrating, especially after having read all the rave reviews of the game.

Surely, such a system is self-defeating. The dedicated hacker may see it as a challenge to break into the game and get round the protection system but the average games player will be put off from buying the game after reading about all the troubles other users are having.

I hope Firebird will come to the conclusion that the system is impractical in its present form and unless improvements can be made to make the system easier to use, it won't employ it again.

M Briody
Milton Keynes, Bucks
Well, does anybody like Lenslok? We all know why it's there and we all know it's a pain but if anyone, even an anyone from Firebird, wants to say something nice about the system, drop us a line. After all, getting your letters into YS is much easier than having them accepted by Lenslok. Oops, did I say that! **Ed**

OAP

Can you spare some space *(Oh, I think there's a bit in the Crab Nebula you can have. Ed)* for a 33 year old pensioner — amongst your teenage readership I think I must be!

Firstly, let me say that I've been an avid member of your readership since the early days when fingers trembled over rubber keyboards. *(Careful, this is a family magazine! Ed).* But there are a couple of points I'd like to make:

1) When a listing includes graphics, life would be made a lot easier if:

a. They were printed clearly and/or

b. You gave a clear indication as to which graphics keys represented the graphics used.

2) Where a number of spaces are to be 'printed' in the program, a REM statement indicating the number of spaces required would save the laborious and often incorrect calculations.

Actually, I've been feeling rather pleased with myself lately, having spotted a couple of (I presume) deliberate mistakes. The most frustrating of them was the half a page of code relating the *Hot Shot* program in YS 2. Why did it appear tagged on the end of the *Alien* program. Maybe I'm in line for a Trainspotter Award?

Finally, is it really necessary to lower the tone of an otherwise excellent magazine with a double page spread of blood and gore and a character throwing up on the cover?

Doug Harvey
Northampton
Thirty-three? Soon be forty. But I don't want to give you a complex about your age. I'll make this answer quick just in case you don't last out to the end of the paragraph.

Your first points have been noted — we'll do our best with the printing and the rest is up to the programmers. And yes, we did make a bit of a Bumpry's birthday party of Program Power in issue 2 but once you've got a hex loader and worked out where each program ends, you should have no problems. Hahem.

*As for the blood'n'gore in the mag, well Vyvyan made his critical comment on the cover. But both items have caused quite a stir — read on . . .***Ed**

Not being a computer fanatic whatsoever but appreciating good artwork when I see it, I must congratulate Nick Davies for his illustrations of The Young Ones on the front of a copy of your magazine. Besides capturing the unique features of each Young One brilliantly, the sick was drawn quite good *(sic. Ed)* too! Keep up the good work matey and if you ever have any spare time, please draw me a Rick. Ta! (I'm being serious y'know).

Andrik Mayall *(Hmmmm. Ed)*
Durham
Serious? You don't know what serious is till you've read the next letter. **Ed**

I am writing to complain in the strongest possible terms about the Friday the 13th poster in the centre of the February edition of *YS*.

As a regular subscriber to your otherwise informative and interesting magazine, I've found nothing in any of the previous issues of *Your Sinclair* or *Your Spectrum* which extends so far beyond the boundaries of good taste.

Living as we do in an increasingly violent society I find it quite incomprehensible that you should choose to portray so graphically this sort of software in your magazine which I imagine has a large readership of children and adolescents.

Ironically, this 'poster' backs onto one of your excellent reviews of a graphics utility, *Art Studio*. I do wish you would devote more space to reviews of this calibre and less to gratuitous violence.

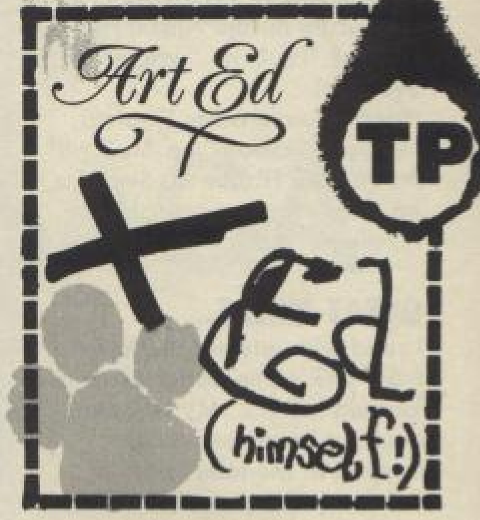
I can only hope that sufficient numbers of your readers will feel as I do and write expressing their opinions; if we are to be faced with any more of this kind of thing I for one will no longer be subscribing to your magazine.

Richard Smith
Southampton, Hants
Phew, someone's after my blood — let me rephrase that — someone's gunning for . . . oh well, you know what I mean. If your daggers are drawn over this, write in. Richard's got very strong views but what's yours? **Ed.** *Mine's a bloody mary thanks!*
Troubleshootin' Pete.

WALL SCRAWL

Could you please send me a sheet autographed by all my heroes and heroines (creepy, crawly) so that I can pin it on my wall and know that you write the best (ker-eeeep) mag going for the Speccy.

Jim Crossland
Dalkeith, Midlothian
To satisfy the thousands of you who were just about to write in with the very same request — weren't you? — here is your very own cut out and keep autograph kit. Just snip round the dotted line and stick on your wall, into your autograph books, at the bit in your wills where it says 'and I leave all my worldly goods to...' A thousand and one uses. **Ed**



FREE FOR ALL

This concerns all readers who cherish YS. I have a very touching story to tell — so touching it hurts me to talk of it but here it is.

I casually strolled into my local newsagent, as I always do, and suddenly, yes so suddenly it took me by surprise, I saw two copies of *Your Sinclair* ish 2 perched unhappily on the shelf next to some lousy Commie mags. In an instant I rushed over to the glowing mags and grabbed one, fumbled for my money and bought it.

On the way home I thought how sad the other YS must have been feeling, so as much as I wanted to keep my spare 95p, I rushed back to the shop (hope you're crying by now), grabbed the sad-faced *YS* and shoved it under my jacket. Unfortunately, I had to take it out again and pay!

Anyway, the story ends happily after all, as I have two merry YS issue 2s.

Stuart Free (ace face)
PS Both YS mags wish you well!
Sob, sob, sniffle, sniffle. Your story has touched my once stony (sob) heart. I realise now I've been cruel — a right sob. So, to make amends I'll perform an act of great kindness. We can't really let T'zer get left on the shelf. No, I'm not going to marry her but I will give her back her job. What charity you say — well, you don't expect me to pay her as well? The least you can do is promise that you'll buy at least two copies of YS each month. I've turned over a new leaf — and so must you . . . **Ed**

SMALL PRINT

Can someone buy the Ed a new typewriter without brackets on, pur-lease!

Laurence Banyard
Wivelsfield Green, Sussex
(You'll never take my brackets away from me! **Ed**)))))))))))))))))))))))

I think I should get an award anyway to make up for where I live.

Kevin Phillips
Pratts Bottom
What, a sort of Pratt of the Month award, eh? It's yours! **Ed**

I am writing this letter knowing it will not be printed.

Nik Taylor
Hull
Seems a bit of a waste of time to me. **Ed**

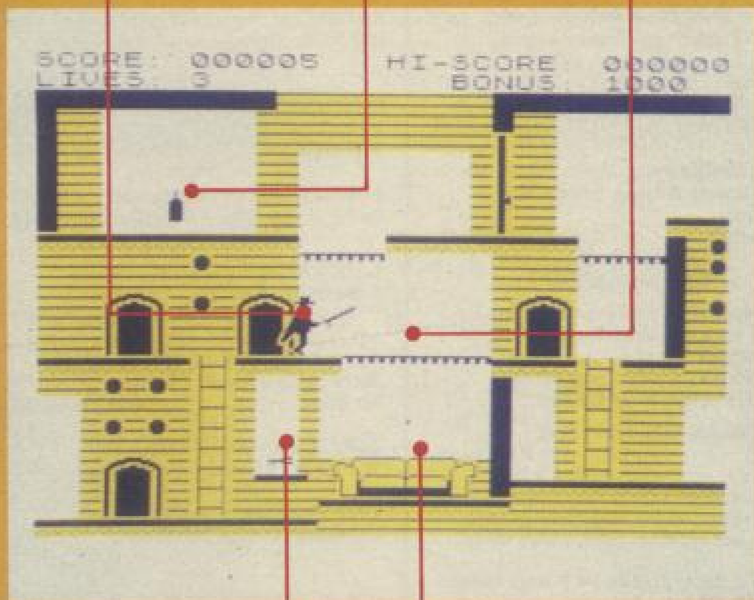
SCREEN SHOTS

The shoot 'em ups — and downs — of all the latest games. Reviewed this month by *Rick Robson, Gwyn Hughes, Rachael J. Smith, Luke C., Max Phillips* and *Phil South.*

Uh-oh, a guard. Despite his pike he won't pick a fight unless you're in the way as he patrols between doors. Then use fire as you parry and cut him to ribbons.

Problem: how to get your hands on the bottle when it's behind a locked door. To do so you'll need to leave this screen bottom right and climb outside to re-enter top right.

Pieces of floor like this just aren't so solid. In fact you'll tumble through them. But that works both ways — you can also leap up without crushing that lovely hat.

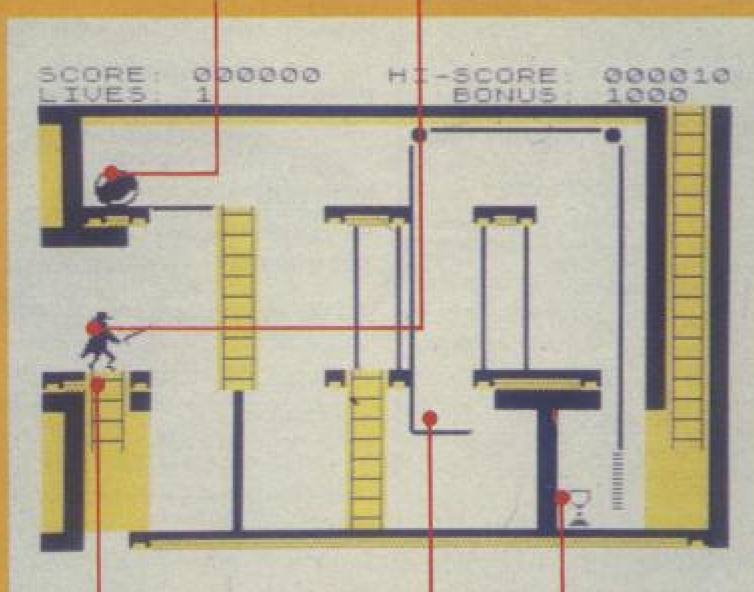


Here's the key to the door — that's simple — but the key to the screen is getting over the wall so you can get up there.

I was always taught not to bounce on the furniture, but stand here and keep Up pressed to gain height, then add Right and you'll sail up to the next level. Sofa, so good.

A rolling stone gathers no moss but if you roll this boulder it'll cause the lift next to it to descend. That forces one up from the floor on the other side of the ladder, which it'll then roll onto.

Well, here's our hero, pondering just how to win the cup. Let's not question the presence of all those platforms and pulleys when their logic has such a loopy charm.



You'll need a counterbalance to raise the boulder on the second lift so that it can travel even further. Luckily there's one planted down here so you'll need all your trampolining skills to get it!

The eventual resting place of the stone. Its weight will lift that door enough for you to slip under it so all you have to do now is work out how you get to that ladder on the far right.

No wonder the goblet's well protected. Like several other objects in the game it has magical properties.

Zorro

US Gold/£7.95

Rachael 'Zee' is for Zorro — not 'zed' and I'm not zorry to zay zo because Zorro is an all-American hero. To protect the poor and innocent he dresses in a floppy hat, cape, black silky shirt with ruffles, tight trousers . . .and are you sure this is 'all-American'?

Though he isn't so well known in this country, Zorro is a sort of trans-Atlantic Robin Hood, vanquishing villains along the Mexican border and carving his initial into their chests by way of a calling card. He's swashed his buckle in films and books and now it's time for Zorro to meet the Z80 in an arcade adventure.

The plot. Evil Sergeant Garcia (Boo, hiss — never trust these Hispanic types — he probably already has a 128K Speccy too) has kidnapped a beautiful Senorita and before you can say Olé he's holding her captive in his castle. In fact you get the whole drama played out before you as this fair Sprite-orita is hustled to the hacienda. So you grab her hankie as it floats to the ground (hope it's a clean one) and set off to rescue her.

It's important to say right from the start that Zorro won't win any awards for its graphics. Unlike the Commodore version, which looks rather nice from the screen shots on the box (naughty), all the characters are silhouettes, scuttling around a primarily black on yellow landscape. It's a pity the setting couldn't have been more atmospheric because the game itself plays rather well.

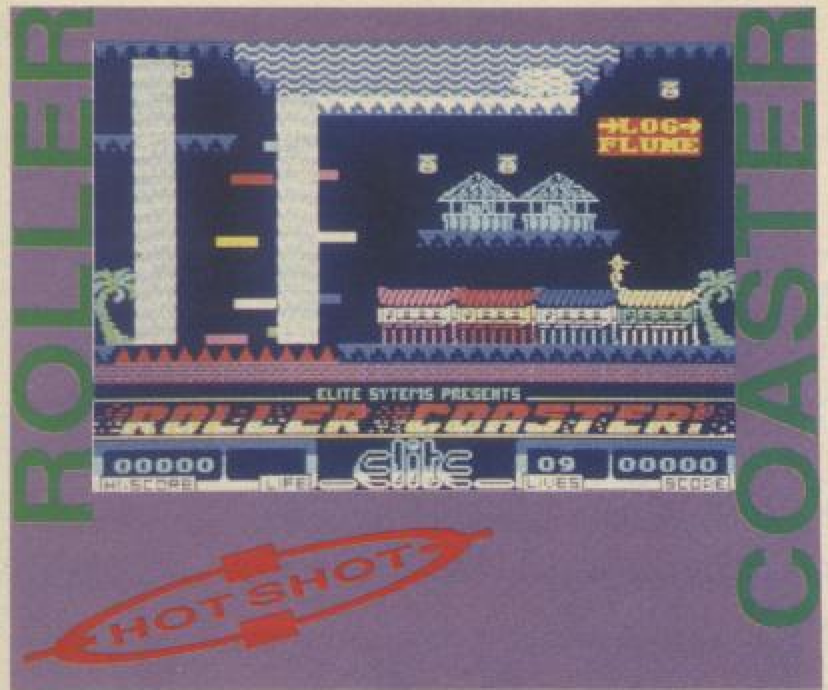
What you have is a platforms and ladders game but with some rather clever puzzles. Many of these involve doing things on one screen then backtracking to another to benefit from their effects. It gives you more of a sense of place and less of a feeling of just clearing screens. There are objects to pick up, though what they're used for is unlikely to be immediately obvious, plus lifts and even trampolines that guarantee Zorro will always bounce back.

Combat comes when you meet the guards. And sword play or driving them off ledges leads to a ghostly 'zee' appearing. Actually they're not at all hard to hack and you're more likely to need your four lives to experiment with tricky leaps. Here's the game's other potential failing. Once you've solved the problems all you can do is race against time for a higher bonus. That said though, *Zorro* is fun to play and surprisingly addictive.

Graphics
Playability
Value for Money
Addictiveness

8

ROLLER COASTER



Elite/£6.95

Gwyn Amidst all the sophistication of games, the half screen tall sprites, the icon driven adventures, it's worth remembering where it all began . . . in the Arcades. It's worth breathing a nostalgic sigh for the times when all games were simple — some were simply dreadful but others were simply wonderful.

And let us not forget Miner Willy, Matthew Smith's classic coal cutter. His platform jumping exploits created so many clones that many people still run screaming when they see a game with only left, right and jump controls. (Right, nurse, I think we've lulled this reader into a sense of security. Now just slip the strait jacket on. Nice and secure? Good.)

Roller Coaster has only one key in addition to right, left and jump — but that's only a go faster button. (Good thing we used the manacles . . . can't escape when I drop the big one.) And *Roller Coaster* is great. Its plot is minimal — collect the money bags left inconveniently around a fairground, jump over obstacles and go for rides. That's all. Your little man doesn't even have a name.

So what is it that makes *Roller Coaster* almost as much fun as the real thing? I'm not sure. It's a high scorer — but that's not enough. And it looks good and has some classy opening music and spot effects — but that's not enough either. Then I think it must be the sheer addictiveness. Nothing's so difficult that you won't achieve something first time — but to get every bag you'll need to practise on every ride. And curiosity about what comes next will spur you on.

Elite has made something of a speciality converting arcade games of late. Here they have an original that's worthy of a full sized machine of its own.

Graphics
Playability
Value for Money
Addictiveness
9

QUIZ QUEST

Alligata/£4.99

Max Here's a trivial snippet that might come in useful one day. Ever since the ridiculously over-priced *Trivial Pursuit* board game, everyone who's produced a quiz game has patented it in the rather silly belief that they will make millions from it. Now *Quiz Quest* is a pretty good game and, as computer quizzes go, it's easily one of the best around. But it's patently not going to make anyone rich!

The idea is that you must complete a quiz of eight questions. Get one wrong and you then have to complete another set of questions, starting at the same question number you got wrong in the first set. So every mistake you make keeps adding vast numbers of new questions to answer before you get to finish the quiz. And it's against the clock. This is a pretty good variation on the theme but it's very hard to tell it's going on when you're playing. There's no immediate indication whether your answers

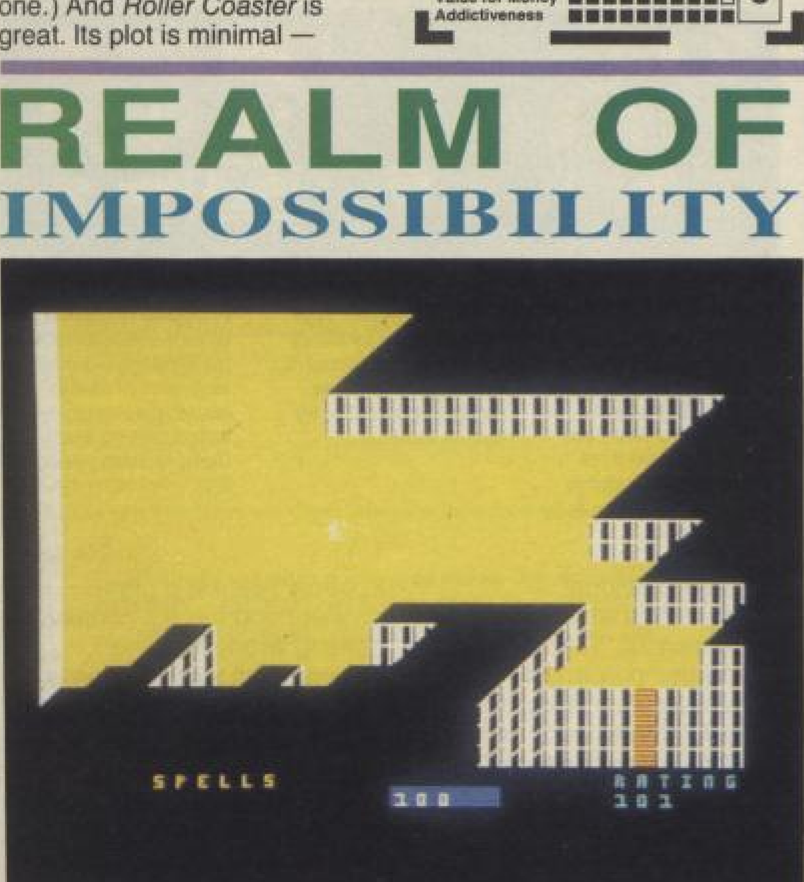


are right or wrong and no way of knowing quite where you're up to. So you just keep answering questions until it's all over.

As for the questions, QQ comes with two general knowledge games, pop, sport and TV as well as a program to let you write your own quizzes and an inlay card that doesn't relate much to what's on the tape! Alligata has another 10 subjects on a £4.99 tape and the authors (who still ain't rich) are doing a book. There's enough to be getting on with but the questions seemed to be 90% dead easy, 10% flippin' impossible which meant the game didn't last long at Castle Rathbone.

Graphics
Playability
Value for Money
Addictiveness
7

REALM OF IMPOSSIBILITY



Ariolasoft/£7.95

Gwyn There's nothing wrong with calling a game *Realm of Impossibility,* providing it's within the realms of playability.Thisisn't.

This is a maze game of sorts; the usual with lots of nasties that make directly for you and sap your strength. You have to fend them off by dropping crosses or using accumulated power for stronger spells, such as Freeze.What marks it out is the landscape.

Unlike most two player options the one in *Realm of Impossibility* is aimed at co-operation. It's a nice touch, and means that to improve your own best score you need to keep your opponent alive so that they can help you in turn.

Unlucky for some, maybe, there are thirteen of these caves, each needing to be loaded from the second side of the tape, and some remain locked and unloadable until other levels have been conquered. Though multi-loads can be annoying this one means the game is big.

All of these features have made this a US top five hit and it's not difficult to see why. But — or should that be *but* — Ariolasoft's conversion is atrocious. As an object lesson in flickery sprites, bad control and the odd bug or three, it's excellent. Yes, it's just playable if you can put up with invisible (white on yellow) characters and severe steering problems. It's as if the programming had been done by people who knew nothing of the Spectrum's capabilities — and even then they'd done it in a hurry! This belongs in the Realm of the Turkey.

Graphics
Playability
Value for Money
Addictiveness
3

ENIGMA fORCE

Beyond/£9.95
Rachael 'Warning. Orbit decaying rapidly.' "Oh no!" 'Helm still not responding.' "Where's Zoff?" Meanwhile . . . An escape pod blasts off from the ship . . 'ROM parity error. Support systems failing. Locate and neutralise Zoff.' "Hold on!" KERR-ASHHH!!!!

Yes, they're back — the Enigma Team, the intergalactic good guys (and gal) who didn't so much marry the micro game and movie as combine the computer adventure with the comic book. Can't you just see them in the poorly printed pages of Marvel? Here they are again, along with arch enemy and all round baddy, General Zoff. (No Jemimah — that's not a Bulgarian insult. 'Why don't you Z . . . off!')

While escorting said dictator to face the emperor's wrath (and a long term in imperial chokey), he lets go a mighty psionic blast. Which just goes to show, they should never have let him near the pickled eggs. As the ship circles out of control, he ejects. And when the team wakes up they find their numbers reduced to five. So, as they say in all the best comics, roll call. There's Zark, Sevrina, Syylk and Maul plus . . . *you* as the team leader. Will those four, under your command, be able to recapture Zoff?

The action takes place in the subterranean complex beneath the capital of Syylk's home world. However that old platitude 'There's no place like home' is less than apt as the planet is wracked by warfare. In the good corner, the home team are the insectoid inhabitants, while their opponents are reptiles, loyal to Zoff. It's into this battlezone that the ship has crashed and the first task may well be to locate the chief insect, Big Bluebottle, and make friends.

Meanwhile Zoff will be making for an escape craft and safety, and that's hidden in the reptiloid zone (Didntcha just know it!). But first he'll need his passport to freedom — the Zoffcard (don't leave home without it.) And as if that wasn't enough the arrival of republican destructor tugs is imminent, all ready to eliminate the planet once and for all, so there's no hanging around to admire the view.

The most obvious difference between this and its predecessor, *Shadowfire*, is that now the action is happening right there before your very eyes — and in the glories of wide screen too! The icons are still there for you to pass on your commands, but now when you tell Syylk to go left, you'll actually see him do it in full animation. The subterranean chambers are effectively done and there's a reasonable sense of frenzied action in the battle scenes. Best though is the opening music, the Enigma Team theme, and the spot effects.

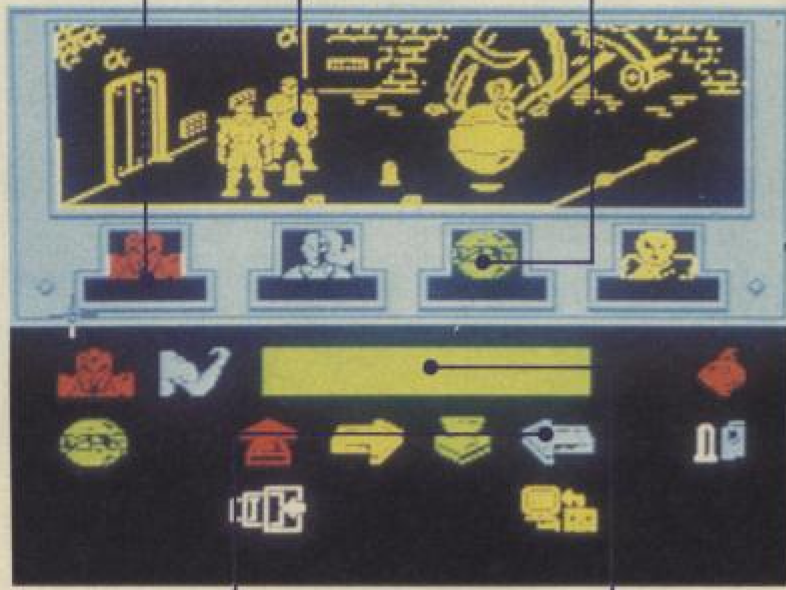
As before there's a lot of strategy involved to use each character to your best advantage. And not only have they got minds of their own, not placing themselves in positions of obvious danger, but they also have individual characteristics which shape their behaviour. There's a lot to find and use properly if you're to recapture Zoff. And if you try to do anything without making a map then you deserve to get as lost as you undoubtedly will!

Speaking personally, I must confess that my reaction to the game wasn't overwhelming but there's no denying that the Enigma Team is a great concept and there's certainly nothing wrong with the program. I'm sure that fans of *Shadowfire* will soon become absorbed.

Zark Montor — the head of Enigma Team, he's more machine than man, making a real toughie. Choosing his icon here places him under your command.

Syylk — a smoothie with a pathological hatred of Zoff and high stamina and heavy armour to back it up. Though the screen's as yellow as he is, it's no sign of cowardice — just that he's currently under command.

Maul — not to be mistaken for a flying hamburger, this droid can have a devastating effect with his weaponry. Below these icons is a space to record any sequences of commands entered.



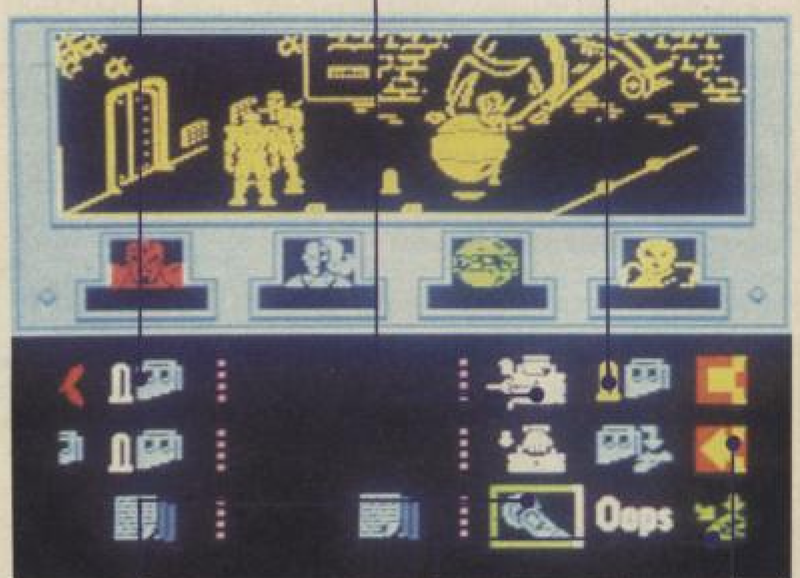
The flashing box indicates that this icon to move left is currently under the cursor.

Muscle beach? No, just an indication of strength remaining for the character in play. A written status report is available by choosing the icon below the right arrow.

Here's where the contents of an area appear. Once you've decided to pick something up you then choose what here. Once it's done it'll appear in your personal inventory in the next section.

No there aren't any brief cases in the game — these two icons indicate pick up and drop, but you'll need to use them in conjunction with the inventories.

The colour of the bullet here indicates how much ammunition is left for the current character. It's worth keeping an eye on this and using the icon below to reload whenever it goes red.



Avon calling! No, not a door bell but an activate or enter icon. You'll need to build the command by stating what you're activating from your inventory then. And if you didn't mean to set those explosives there's always the Oops command to erase your error.

At times a futile, heroic sacrifice is needed. Then this is the icon for you as it transfers total control of the character to you so that they're moved by the joystick alone.

There are two battle strategies. The double arrow is a general melée but the single one creates singularity of mind in hounding a chosen individual to the death. Useful for when you locate Zoff.

Graphics
Playability
Value for Money
Addictiveness
8

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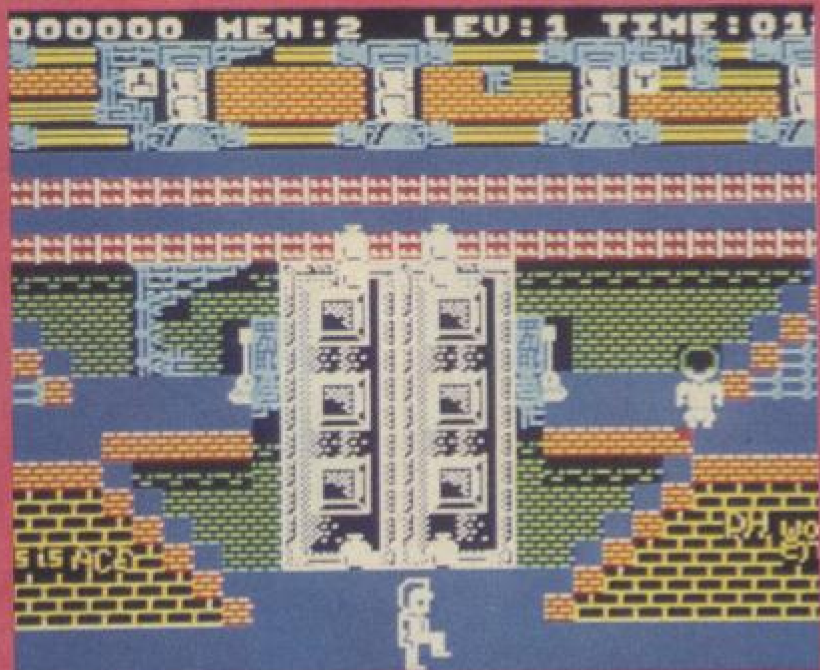
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SCHIZOFRENIA

Quicksilva/£7.99

Max Zall ve do ze funny vork zen? Alphonse T. Nurd and his badly behaved alter-ego are a couple of versatile sprites with the ability to walk in a rather comic way, pull levers, climb stairs, bend down, open things and so on. But what's most amusing about them is the crudity of it all. And it's not just colour clashing — on the occasions you can't see through them, they cast black rectangular shadows wherever they go. In a game where split-pixel positioning is essential, it makes playing nigh-on impossible.

But I'm in two minds about the game itself. To get through a room, you have to pull various switches, bolts on doors and so on. All the time, your alter-ego is wandering around in a fairly predictable way putting switches off, pushing bolts in and anything else he can think of to hinder your progress. The solution appears to be to work out what needs doing (by watching what he does) and then following him at a distance of a couple of steps, doing the opposite. This is pretty original for something that's a platforms'n'ladders game at heart. Particularly as you have to keep switching the scoring back on in the first screen!



There's also a very original scratch-wiv-a-coin lottery card that tells you what you're supposed to do on the first five screens. This suggests there's a lot more to the game than just getting through the screens but since the animation makes it all so hard, I can't tell you for sure. So this is a good one for complete addicts who like a challenge and for whom the neanderthal coding adds to the game's excitement rather than puts you off.

Graphics
Playability
Value for Money
Addictiveness
4

FLYER FOX

BugBytes/£2.95

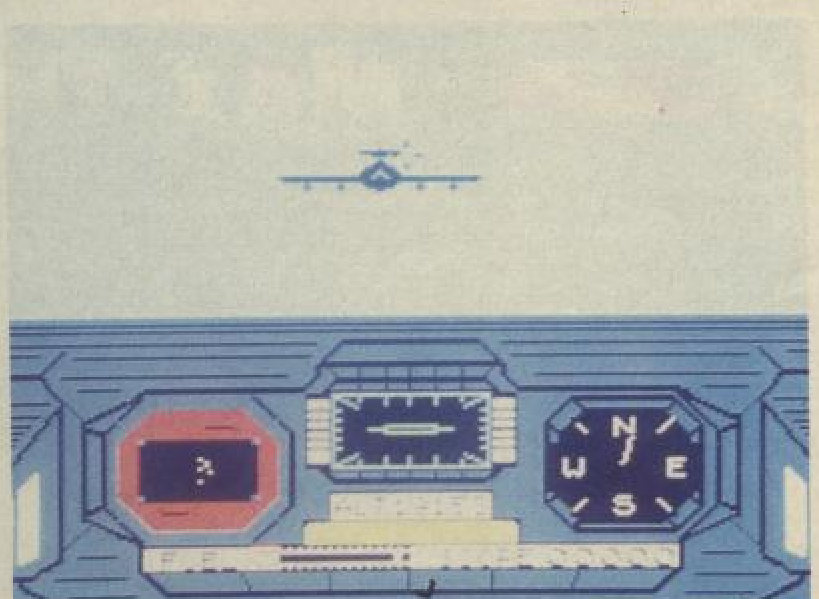
Rick Okay, Algie, more cabbage crates over the briney . . . ack . . . ack . . . ack . . . Boggled by Biggles? Then Bug-Byte's *Flyer-Fox* (any similarity to *Firefox* is purely on purpose) might not be your cup of rosy lea. Admittedly the technology might be updated but whichever way you look at it, this is a fighter simulation that pre-dates the Red Baron in concept.

But they do say the old 'uns are the best 'uns, and at the price it provides a competent compo between you and your jet-set enemy as you try to protect a jumbo. It gives you the thrills, but don't expect the frills.

You're given a pilot's eye view, with instrumentation giving fuel, compass, score, altitude, flight attitude and damage reports. You can't fly above 19,153 feet or, curiously, below 11,024 feet. At that height you're given a simple graphic of the terrain below. Much above and it's just blue-sky — occasionally full of bandits who want to erase yer from the azure. And listen out for the passable speech effects warning of imminent attack and your damage status. They're somewhat arbitrary, but that makes it more fun, eh, what, Tufty?

Though simplicity itself in its one screen format things get increasingly hectic through its six levels. So, if you figure a trigger's what fingers are for then go for it, Ginger.

Graphics
Playability
Value for Money
Addictiveness
6



BENNY HILL'S MADCAP CHASE



Dk'Tronics/£6.95

Rick Dk'Tronics certainly do things *big*! Following their success with mega-huge graphics on *Popeye* they've used the same format for this slice of the seaside postcard buffoonery of Benny Hill.

As Hill's subtle Scuttle persona (and scuttle is what you'll do plenty of), bereted and bespectacled, you have to negotiate a crowded street to help Mrs. Harras get her washing in. Walk into any hazards — walls, lamp-posts and so on and you'll lose points. It's never explained why Mrs Harras' washing line is in the middle of the road. Nor can you explain to the street busybody that you're not nicking the knickers but helping. So this enraged and, of course, enormously busted woman will chase and trample you revealing her Norah Batty bloomers to the world — and what's worse, pinch back the clothing.

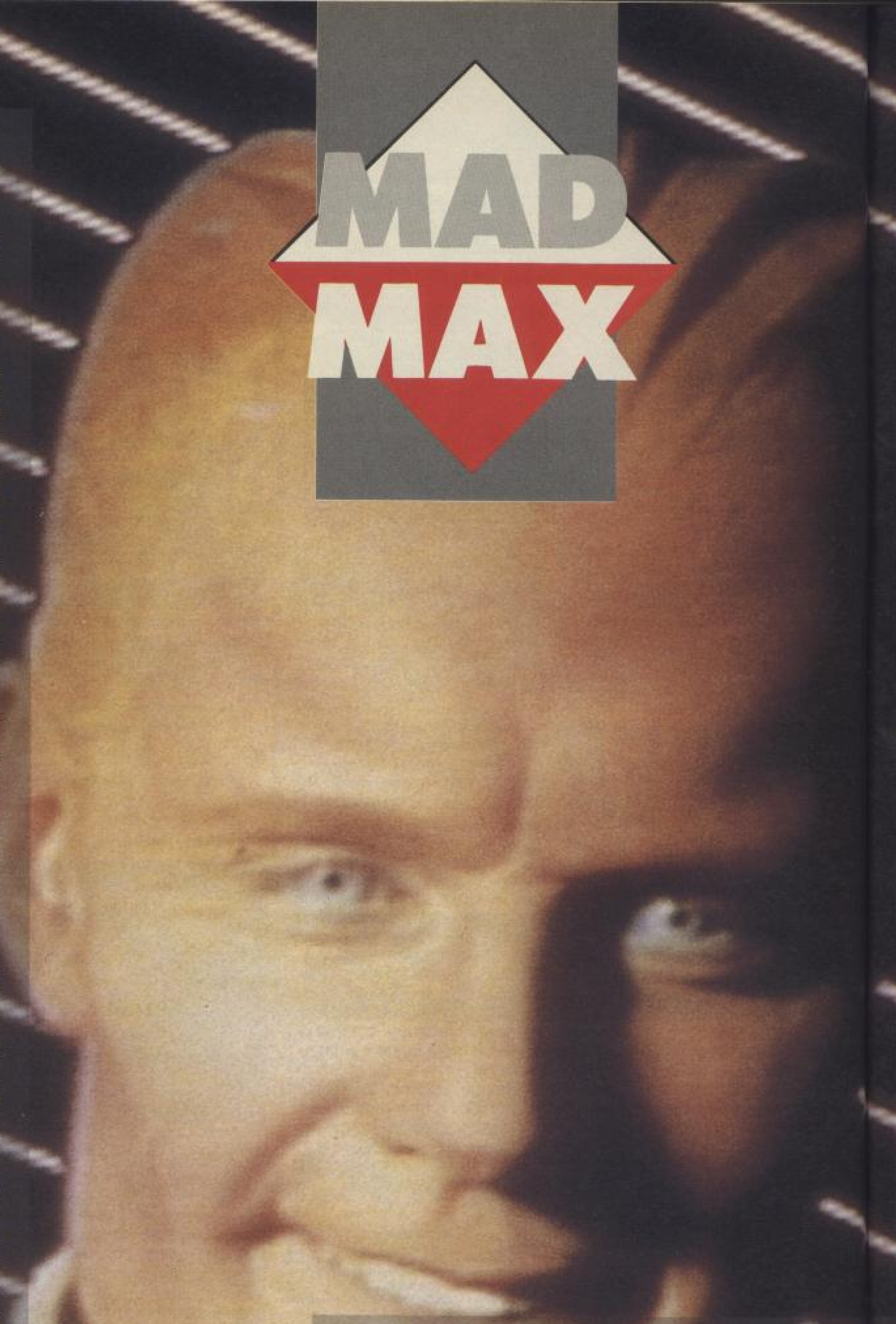
Should you succeed in your longjohn larceny (20 points a garment, whether bra or trousers) within the allotted time, you'll pass on to stages 2 and 3 . And once again, much as in life, your innocence will be misconstrued and farmers and policemen will give chase.

True Hill fans will lament the absence of Hill's Angels and the risky jokes but if you prefer being chased to chaste, this is the one for you, poor soul.

Graphics
Playability
Value for Money
Addictiveness
6

MORE SCREEN SHOTS ON PAGE 64

MAD MAX



N-n-n-now we're going to hear from the big G — *Gwyn Hughes*. He's had a sneak p-p-p-preview of Quicksilva's new game all about me-Me-Max Headroom. The pleasure's all yours . . .

Everyone who enjoyed the debut of Max Headroom in Twenty Minutes Into The Future, the film that told the origin of TV's first computer generated personality, will remember the chase through the Network 23 skyscraper — that elaborate game of cat and mouse with its battle for control of the computerised lift system and security cameras. *Max Headroom*, the game, is set a couple of months after the action of the film. But it's not really surprising that Argus has chosen this sequence as the basis for the game's scenario.

Arcade sequences are interlinked with puzzles — and it's with one of these that the game starts. To reach the Executive level, where reporter Edison Carter will recover the electronic box in which his personality has been captured, you must first take control of the lifts. Fail and he'll be shuttled between any of the 199 floors below. Only when you've mastered the first puzzle can you shoot up to floor 200.

Once you're up to the Executive level there's another test to complete — the resistor game. If you crack it, you'll take control of the scanners on that floor. Then it's a question of searching the rooms of the nine floors to discover the eight secret hexadecimal codes. But you are not alone — there's a gang of punkish thugs on Edison's tail so there's no time to waste. As soon as you've located the codes, hop back in the lift and shoot up to floor 210, the Presidential Suite. Put the code into the computer there and you'll be presented with another code for the computer lab on floor 209. It's there that Edison will find the object of his search — the Max Personality Module. Then it's back to the lift and down to the basement and the car park.

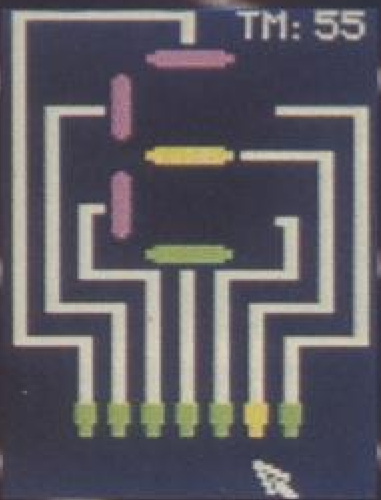
And that's it . . . Well, not quite, because even though the game will be over, the program isn't and you'll have to load another block of code for the reward screen. Then you'll be greeted by none other than an all-talking, fully animated ol' flat head himself, living inside your computer and presumably chatting about golf shoes or more importantly . . . himself. Well worth p-p-p-p-playing for, huh. Only k-k-k-k-k-kidding.

MAX-THE

One minute Mrs Squarice sat in front of the telly, just as she did eighteen hours a day, seven days a week. The next minute she was a yellow stain on the wallpaper, a greasy blob on the ceiling and a sticky mark on the carpet. Nasty business this spontaneous combustion. Even nastier for Network 23 if news leaked out that its Blipverts were behind the bangs.

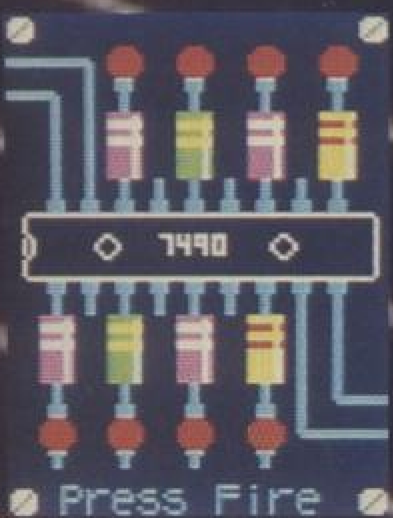
But ace reporter, Edison Carter was on to the big bang theory. That's why he had to die. The order came through from Grosman, head of the network, "Get Carter!" And so the chase was on — through the corridors of the skyscaper HQ, down the lifts and out into the underground carpark. But just as freedom was in sight a barrier came down. The last words to illuminate Edison Carter's consciousness were Max Headroom 2.3m.

And that's who Carter's computer generated alter ego thought he was — Max Headroom. The man who created Blipverts for Network 23 took Carter's personality and



LCD

Just like the circuitry that controls a watch's LCD display, these seven bars can be switched on to form any numerical digit and several letters. The secret is to form the letter E (for Executive, see?) and later P (for President) before the time runs out. To make it more difficult the bars have a limited life so you need to replenish the charges if you're to take the lift to floor 200.



Simon

Not just anybody's allowed into the Executive level — after all, you can't have the oiks using the managerial bog! To prove your worth, every time you try to exit at one of its floors you have to match that tune, only this Simon isn't so simple — you have to get the order of the notes and match the resistors in reverse!

TV TIMES

Going up — and the building glides by as the high speed lift rockets Edison into the unknown.

Behind every good television personality is a good producer and here's the role you play. Theora Jones, who guides Edison in his quest.

Choosing this command calls the lift, and it flashes while the thing's on its way but in a 210 storey building can take some time.



Well here he is, hunky Edison Carter, an investigative journalist who thinks he's got it hard, working for Channel 23 and having his personality stolen. He should try Castle Rathbone . . .

Uh-oh, looks like you failed at the first test. This means that you didn't make an E, or a digit when you reached the executive tower, so you'll have to go where the lift chooses.

Despite his problems with the lift this shows that Edison is feeling confident and is uninjured. But fail to dodge those bullets and soon it will pass through bruised and wounded to ex-Edison!

There's never a lift when you want one, but Edison can't afford to hang around because that's a gun-toting punk just coming into shot.

What skeletons does this closet hide? If you're lucky it will be part of the code that'll let you into the lab, so once you've entered the room you'd better open it.

No time to waste as the minutes pass relentlessly by. Luckily there's a hold facility to give you time to gather your wits.



If you want to know where the heavy mob is a quick scan through the security cameras will do the trick. After all, they're not the sort of people you'd like to bump into unexpectedly.

When you want to leave a room screen this is the option to choose — then straight to the movement icon and go — go — go!

Taking a breather's one way of increasing your strength, but don't get caught napping.

Keep on running. Choosing this icon gives movement control to the joystick. Pressing fire lets you leave it and the joystick then illuminates the other options in turn.

AX

turned it into a media star. But even he had no idea of the power and potential his box of computer tricks called up. That's why Grosman could not afford to let Max fall into a rival's hands — in the ratings war, Max Headroom helps you win. Max made people explode too — but only with laughter.

When another television station got hold of Max, Grosman just had to get him back — and he did. But he reckoned without Edison Carter — he may have crashed the barrier but at least he didn't lose his head

TALKING HEADS

In honour of the impending release of this Headroom game, we sent our cub reporter Snowy, Sony in hand, over to the parking lot where the Big Time Television bus is sited, still "Making tomorrow seem like yesterday . . ." Ahem, sure thing, Reg! Take it away Snowy!

Good Afternoon Mr Headroom.
There's no need to stand on ceremony there, Snowy. All my friends call me Max, so just call me plain old Mr Max Headroom Sir. Hah! I'm only kidding, you hope!
Max, to start off with a bit of background, do you have any idols at the moment?
Well y'know, young sir, what with all the filming and stuff, I rarely . . . rar . . . r . . .r . . . rarely have any idle moments . . .
Er . . . no, I mean do you have any idols?
I am, as I'm sure you know a very deeeeply religious person. No, I'm not kidding. I consider it my duty to turn up every Sunday on the putting green . . . .
I mean to say, do you have any heroes?
Snowy. A person of my modest predisposition doesn't have heroes, only equals. Ahh. . . . except mebbe one. Ya, just a lit-tel tiny hero and that's Sevvy . . . Ballesteros . . . (silence)
I hope you don't mind me asking, but a lot of people have asked me what you put on your hair to make it stiff like that?
I don't mind telling you that what I put on my head is a secret . . . aw, alright I'll tell you. Syrup of figs. Keeps the ol' brain on it's toes 'n' keeps the thoughts running freely.
Have you got a girlfriend at the moment?
Oh no, I'm just too busy. *Although once a week there's this dinky little TV camera that's making eye at me. I don't know if I could handle living with someone with one eye. And it's glass too, y'know.*
How old are you?
Look at my serial number.
Well, thanks for talking to me, Max.
That's perfectly alright, Snowy. The pleasure is en-tirely your own.
Oh, one last question.
Mmm hmm?
What do you think of Hex Loader?
Who he?



HEART TO HARTNELL

Are you into random skewing? You are? Then join skewball *Tim Hartnell* on the random number trail.

In 1347 Chinese sage Li Ran Dum he say, I have invented random numbers. His heirs still receive a royalty for every random number generated in the world.

Each Sinclair computer, along with just about every other micro that I know of, comes complete with an inbuilt function to generate random numbers. Actually it's a bit of a con — the numbers aren't really random as they're the result of a decision made by the computer in line with an inbuilt program. This program dictates specific actions in response to specific situations. To put it a simpler way, if you knew the computer's inner program and what it responded to you'd be able to predict exactly which 'random number' it would select next.

It'd be pretty difficult to do this though because the computer chooses each number from a very long list, and then repeats the list when it gets to the end. It'd be almost impossible to figure out when the list began again.

So, how does a Spectrum or QL create random numbers? There are several 'random number' algorithms in existence — an early one was developed by one of the grandfathers of computers (no, not Uncle Clive, decades before he thought of the ZX80), John von Neuman. He worked out a method of generating random numbers based on taking a four-figure number, such as 8931, then squaring it, to produce 79762761 in this case, and from that selecting the middle four digits, 7627. These four digits were then used as the first random number, then they were squared (58171129) to create the next number in the sequence and so on.

Right, now you've got the basic concept behind random numbers here's a small program that enables you to produce von Neuman numbers on your Speccy.

```
10 INPUT "Enter number ";a
20 LET b$=STR$ (a*a)
30 LET a=VAL (b$(3 TO 6))
40 PRINT a
50 GO TO 10*(a>999)+10
```

When it starts, enter any four-digit number; it'll then run for a while and stop. It's now waiting for a new input. You'll soon discover this doesn't produce the world's most satisfactory random numbers — in many cases the numbers start to repeat fairly quickly.

Most random number generators inside micros use a formula along the lines of SEED=(ANUMBER*SEED+ANOTHERNUMBER) MOD YET ANOTHER NUMBER. SEED is then fed into the formula for the next run through. Modular division actually returns the *remainder* of a division (so 10 MOD 3 is 1) but we don't have this on a Spectrum. However, it's pretty easy to simulate it.

Here's a routine that generates random numbers using an approach similar to the one that occurs deep in your Spectrum's gizzards:

```
10 INPUT a
20 INPUT b
30 INPUT c
40 INPUT seed
50 LET seed=((a*seed+b)/c)-
     INT ((a*seed+b)/c)
60 PRINT seed
70 GO TO 50
```

The first two numbers (a and b) should be quite large and the next two (c and seed) relatively small. If you want a run that continues for a long time without repeating try 1478392 for a, 5228791 for b, 778 for c and 459 for seed.

MONTE CARLO OR BUST

John von Neuman also developed a rather neat way of working out areas, based on random numbers called the Monte Carlo Method. If you had a map of an area containing a single continent and you randomly dropped darts on the map and then counted how many darts fell on the continent and how many fell outside it — the area of the continent would be proportional to those that fell outside. Got that? By knowing the total area of the map you could then work out the approximate area of the continent.

We can use this method to work out an approximation to Pi. Imagine you had a square with a circle drawn inside it so that it was just touching the sides. Now, mentally divide the square and the circle into four, throw away three quarters of this and you're left with a quarter square — amazing. Now imagine you were dropping darts on the square, some would fall outside the circle and some within it. If the darts were dropped randomly the ratio between these two values would be Pi/4. This program drops the darts for you:

```
10 LET a=0:LET b=0
20 GOSUB 100
30 LET b=b+d
40 LET a=a+1
50 LET p=4*b/a
60 POKE 23692,-1
70 PRINT a;TAB 6;ABS(PI-p)
   ;TAB 19;p
80 GO TO 20
90 REM ********************
100 LET d=0
110 LET m=RND
120 LET z=RND
130 IF m*m + z*z<1 THEN
    LET d=1
140 RETURN
```

This'll print out, in line 70, the number of darts you've dropped (a), the difference between Pi and the number you've calculated as an approximation to it (Pi-p) and, finally, 'your' version of Pi (p). After dropping 5000 darts, I got the following printout from line 70:

5000 .0023926534
3.3192

An error of .002 isn't bad, but I decided to run the program till it dropped 20,000 darts to produce this result:

20000 .0016800733 3.1432727

As the Spectrum holds Pi as 3.1415927 the result I got is a pretty fair approximation. I doubt if running it longer would produce a better result but if you want to melt down your Spectrum to prove me wrong do have a go. But don't forget the royalties to Li Ran Dum!

JUST HOW RANDOM'S RANDOM?

You can find out how random the numbers on your Speccy are by writing a short program that not only generates the numbers but also works out their distribution. You'll notice in the next program, which does this, that the first line is RANDOMIZE. This looks at how many frames have been generated on your TV since you first turned on the Spectrum, and uses this to select a random starting position from within the super-long list from which the random numbers are chosen. All this ensures the numbers are more truly random.

```
10 RANDOMIZE
20 DIM a(10)
30 FOR j=1 TO 1000
40 LET b=INT (RND*10+1)
50 LET a(b)=a(b)+1
60 NEXT j
70 FOR j=1 TO 10
80 PRINT j;"  ";a(j)/10;"%"
90 NEXT j
```

If you have a shufti at the program you'll see it stores the frequency with which the numbers are generated in an array. Loop 70 to 90 prints out the frequency as a percentage of the whole run.

I ran the program three times and took an average of the results. If the random number generator was perfect, and I ran the program for an infinite amount of time, they would come out at exactly 10 percent. As you can see from the results below they came pretty damn close, even on such a relatively small sample.

Random Results

1 — 9.6%	**2** — 10.1%
3 — 10.4%	**4** — 10.0%
5 — 9.9%	**6** — 10.3%
7 — 10.0%	**8** — 10.5%
9 — 9.4%	**10** — 9.9%

If you change line 30 to read FOR j=1 TO 10000 and the divisor in line 80 to 100 and run the program three times again the results will be even more accurate.

Random skew

Now there may be times, when creating computer simulations for example, when you want *skewed* random numbers, in other words numbers that are biased in some way. This is actually quite easy to do. If you wanted lower numbers to appear more frequently than higher ones all you'd need to do is change line 40 of the program to:

40 LET b=INT (RND*RND*10+1)

If you run this program three times and average the results you'll see that a higher percentage of the numbers that appear are low — 1,2 and 3 appear more often than 8,9 and 10. And if you're wondering how this works — it's simple! RND produces a number between zero and one and multiplying such numbers by themselves produces numbers that tend to be lower, towards zero, rather than higher.

Maybe you can think of a more elegant method for biasing them upwards — I'd love to hear from you. I finally settled on:

35 LET d=RND+RND:IF d>1 THEN GO TO 35
40 LET b=INT (d*10+1)

This method gets the right results but it's a bit brutal and disturbs the sequence numbers produced by the random number generator.

THE HIT LIST

Check out the latest chart and catch up on all the chat with *Steve Colwill.*

Chart Chat 4

After last month's choppin' and changin', a sort of calm has come over the new chart as the great Speccy-owning public recovers from its stuffing of Christmas turkey and Airport 99 films on the telly. Two new titles fill the top two slots this month: *Winter Games* and *Rambo*.

The surprise loss this month is *Daley Thompson's Super Test*. After 12 weeks almost continuously in the top five, Daley appears to have run out of Lucozade! We also say goodbye to *Monty On The Run* from Gremlin Graphics, *International Karate* and *Back To Skool*.

Amongst the uppers 'n' downers this month are *Saboteur*, up from 10 to 6 and *Yie Ar Kung Fu*, down from 2 to 4. *Tomahawk* drops 5 places to number 9 and *Elite* is down 2 to number 7. The megagame compilation, *They Sold Ten Copies Between Them*, is back in at number 10.

This Month's Top Ten Titles

Position	Last month	Weeks in Chart	• Title/Publisher
1	—	2	• **Winter Games**/US Gold
2	—	3	• **Rambo**/Ocean
3	1	6	• **Commando**/Elite
4	2	5	• **Yie Ar Kung Fu**/Imagine
5	—	2	• **Spellbound**/Mastertronic
6	10	8	• **Saboteur**/Durell
7	5	8	• **Elite**/Firebird
8	—	2	• **Transformers**/Ocean
9	4	6	• **Tomahawk**/Digital Integration
10	7	4	• **They Sold A Million**/Hit Squad

Money Talks

Pssst. Want to hear a spot of scandal? There's a right old barney blown up at the moment about cut-price games and compilations. Some software producers (presumably those that charge a fair whack for their games) are arguing that including cheapo titles in the chart isn't on. They're asking Gallup, the people who compile the YS chart, to produce two charts — one for full-price games and one for the cheapies.

Of course, an alternative method of compiling the YS chart would be to take into account the cost of the game, as well as how many it's sold. Below we've worked out an alternative chart by multiplying the cost of each game by the number of sales. This gives us the 'Sponduliks Factor'. This number tells you just how much money the game is making.

Position	Price	Title	Sponduliks Factor
1	£7.95	Winter Games	
2	£7.95	Rambo	
3	£7.95	Commando	
4	£14.95	Elite	
5	£7.95	Yie Ar Kung Fu	
6	£8.95	Saboteur	
7	£9.95	Tomahawk	
8	£9.95	They Sold A Million	
9	£6.95	Transformers	
10	£9.95	Way Of The Exploding Fist	

This chart is based on the *MicroScope* chart as compiled by Gallup.

MicroScope GALLUP

MicroScope is the weekly trade paper of the microcomputer industry. If your computer store doesn't display the latest *MicroScope* chart, ask the manager to call Mark Salmon on 01-631 1433 — we'll send a copy every week.

12 Months Ago

Position	• Title/Publisher
1	• **Daley Thompson's Decathlon**/Ocean
2	• **Knightlore**/ Ultimate
3	• **Skool Daze** Microsphere
4	• **Booty** Firebird
5	• **3D Star Strike**/ Real Time
6	• **Doomdark's Revenge**/ Beyond
7	• **Match Day**/ Ocean
8	• **Pyjamarama**/ Mikro-Gen
9	• **Underwurlde**/ Ultimate
10	• **Select 1** Computer Records

18 Months Ago

Position	• Title/Publisher
1	• **Sabre Wulf**/ Ultimate
2	• **Matchpoint**/ Psion
3	• **TLL**/ Vortex
4	• **Valhalla**/ Legend
5	• **Lords of Midnight**/ Beyond
6	• **Mugsy**/ Melbourne House
7	• **War Of The Worlds**/ CRL
8	• **Jet Set Willy**/ Software Projects
9	• **Incredible Hulk**/ Adventure International
10	• **Psytron**/ Beyond

A Slice Of Beefcake

Looking back at the last four months' number ones and breaking them down by category, you can see that Speccy owners must be a pretty fit lot. Nearly half the number one slots go to sports titles such as *Daley Thompson's Super Test* and *Way Of The Exploding Fist*. Other honours go to the beefcake/macho games *Rambo* and *Commando* and the more cerebral arcade adventure games, such as *Fairlight*.



HACKING AWAY

Fancy a real good POKE or maybe a bit of a hack? Look no further 'cos *Chris Wood*'s here with the gen on all the latest games.

You can stop holding your breath now 'cos I'm back with megatons of hacks and POKEs for all the latest hit games — Commando, Sweevo's World and Arc Of Yesod to name but a few. Hang on a tick though, you're gonna have to wait a bit longer 'cos I've got to do the decent thing and sort out a few of the cock-ups.

First off apologies to **Mr JS Brown** of Cheshire who underwent a sex change in issue 2 — sorry! Thanks for your tips for Ad Astra anyway. **Wayne Griffiths, Jonathan Lynch, Darren Hutchinson** and **Anthony Palmer** all wrote in to point out that the Gyroscope program in issue 2 was incomplete — whoops. It should've read:
CLEAR 24063: LOAD "" SCREEN$: LOAD "" CODE
and I nearly forgot, after you've put in all the POKEs you want do a RANDOMIZE USR 52390.

Now it's on with the POKEs and have I got some POKEs for you this month. Or rather **A Brown** and **Chris Boland** from West Yorkshire have — they're quite a double act, 'A' provided the POKEs and Chris supplied the printer. Next time 'A' send in your full name and you'll get a proper mention.

SWEEVO'S WORLD

Here's a simple routine from the terrible duo that'll give you infinite Sweevos — what a daunting thought!

```
 5 REM SWEEVO POKE BY ABR
1Ø  CLEAR  24799:   PRINT
"PLAY SWEEVO'S WORLD "
2Ø LOAD "" SCREEN$:  LOAD
"" CODE:  LOAD  ""  CODE:
POKE  33219,Ø:  RANDOMIZE
USR 248ØØ
```

Has anyone found the room where you drop out of the program back to the main menu, or is that peculiar to the Amstrad version?

ARC OF YESOD

If you're fed up of feeling a right Charlie when you're playing Arc of Yesod grab a load of this program from **Jonathan Gillott** *from Thames Ditton for infinite Charlies.*

```
1Ø FOR N=65ØØØ TO 1E9:REA
D A:  IF A<>999 THEN POKE
N,A:  NEXT N
2Ø RANDOMIZE USR 65ØØØ
1ØØ DATA 221,33,112,53,17
,144,37,62,2Ø5,86,5,48,24
1,221,33,Ø,91,17,Ø,133,62
,255,55,2Ø5,86,5,175,5Ø,2
3Ø,185,195,Ø,91,999
```

Thanks to **I McGinney** *from Tyne and Wear for his infinite lives program. Does anybody know whether there's a message for YS in the loader like the one in Nodes?*

CRITICAL MASS

Here's yet another program from 'A' and Chris — this one is for limitless energy. Ignore any funny readings you get from your energy meter. I must say this program's got a very strange loader — it behaves like a hyperloader but it can be used from Basic. You even get 'R TAPE LOADING ERROR' instead of the usual computer crash. Weird!

```
 5 REM CRITICAL MASS POKE
        BY ABR
1Ø  CLS:  PRINT  TAB  4;
"PLAY CRITICAL MASS TAPE"
2Ø LOAD ""  SCREEN$:  INK
6: PAPER 8: OVER 1: PRINT
AT Ø,Ø;:  LOAD  ""  CODE:
POKE 56879,52: PRINT  USR
48ØØØ
```

POTTY PIGEON

You can't keep a good programmer down can you? 'A' is back with a routine that'll give you 256 lives for Potty Pigeon — *if you can stand it. Out with the umbrellas lads (and lasses).*

```
 5 REM POTTY PIGEON POKES
       BY ABR
1Ø CLS: LET T=Ø
2Ø FOR N=23296 TO 23346
3Ø READ A: POKE N,A:  LET
T=T+A: NEXT N
5Ø IF T<>4732 THEN  PRINT
"ERROR. PLEASE  RECHECK":
STOP
6Ø  PRINT  TAB  3;  "PLAY
POTTY PIGEON TAPE"
7Ø RANDOMIZE USR 23296
1ØØ DATA 62,255,55,221,33
,2Ø3,92,17,152,3,2Ø5,86,5
,48,241
11Ø DATA 62,97,17,1,192,3
3,4Ø,94,1,7,2,2Ø5,8Ø,96
12Ø DATA 33,43,91,1,8,Ø,1
7,5,194,237,176,195,119,1
93
13Ø DATA 62,47,5Ø,75,1Ø1,
195,192,93
```

STARQUAKE

We finally made it to 'A' and Chris's last bit of code that'll give you infinite blobs. 'A' does point out that there is a slight drawback in that you can't use the secret passages. I didn't even know there were any! Still, it seems a small price to pay for infinite lives.

This program is a little long so it's got a checksum routine that'll tell you the data line you've typed in wrong, if you have, of course. Type it in as shown. Another program with a funny loader this. It sends different coloured lines up the border but loads at exactly the same speed as the Speccy normally does. Amazing what you start to find in programs once you start looking!

```
 5 REM STARQUAKE BY ABR
1Ø CLS : LET A=65ØØØ: FOR
F=Ø TO 6
2Ø LET T=Ø: FOR N=Ø TO 9:
READ  S:  POKE  A,S:  LET
T=T+S: LET A=A+1: NEXT N
3Ø READ B: IF  T<>B  THEN
PRINT "ERROR  IN LINE ";
1ØØ+F*1Ø: STOP
4Ø NEXT F
5Ø PRINT AT 1Ø,1;" PLAY
STARQUAKE TAPE"
6Ø PRINT'' "IGNORE SCREEN
CORRUPTION!"
7Ø RANDOMIZE USR 65ØØØ
1ØØ DATA 6,2,197,62,255,5
5,221,33,Ø,Ø,831
11Ø DATA 17,Ø,Ø,2Ø5,86,5,
193,16,239,221,982
12Ø DATA 33,Ø,37,17,Ø,192
,55,62,255,2Ø5,856
13Ø DATA 86,5,243,33,23,2
54,17,Ø,64,1,726
14Ø DATA 1Ø,Ø,237,176,195
,Ø,64,33,255,22Ø,12Ø6
15Ø DATA 17,255,255,1,Ø,1
65,237,1Ø4,175,5Ø,1339
16Ø DATA 98,196,195,36,94
,Ø,Ø,Ø,Ø,Ø,619
```

'A' says that if anyone can tell him why he can't use the secret passages he would be most interested.

So would I for that matter. If you know don't keep it to yourself, tell the world via Hacking Away.

FAIRLIGHT

It's amazing how many POKEs I've had for this game — it's obviously very popular. **CR Holland** *from East Yorkshire sent in these rather weird ones. These POKEs will only work with version 2 of the Fairlight program that was in YS issue 1 — it's too huge to reprint here. Add either, or both, of these lines before the last line in the program.*

```
36Ø DATA 62,2Ø1,5Ø,247,24
2:REM BLINDFOLD BADDIES
37Ø DATA 62,2Ø1,5Ø,189,23
6:REM EVERYTHING EXCEPT R
OOM IS INVISIBLE
```

As you can see the first one'll blindfold the giants and soldiers — they'll wander around completely ignoring you. The second POKE is for showoffs who think they can play the game with their eyes closed — it stops the sprites being drawn so all you can see is an empty room. I said it was weird.

Well, I'm off now but don't sit and wait a whole month for the POKEs. Start sending them in to me at Hacking Away, Your Sinclair, 14 Rathbone Place, London W1P 1DE.

HACK OF THE MONTH

COMMANDO

Great game this — it's the best Arcade to Speccy conversion I've seen. Now's the time for some POKEs to help you past that first bridge — no, you can't really be that bad, make it the second bridge. This natty bit of code from 'A' and Chris will make sure your grenades loop round to 255 when they reach zero and your lives never drop below four.

```
 5 REM COMMANDO BY ABR.
1Ø CLEAR 4ØØØØ:LET T=Ø
3Ø FOR N=65Ø3Ø TO 65Ø52
4Ø  READ  A:POKE  N,A:LET T=T+A:NEXT N
5Ø IF T<>21Ø2 THEN  PRINT "ERROR. PLEASE RE-CHECK":
STOP
6Ø PRINT  "PLAY  COMMANDO TAPE": LOAD "" CODE
7Ø POKE  65441,172:  POKE 65442,84: RANDOMIZE USR
654Ø5
8Ø DATA 49,Ø,98,175,33,4,1Ø8,119,35,119,35,35,119,
35,119,35,119,5Ø,254,236,195,3Ø,1ØØ
```

I'd also like to thank **CR Holland** *from Bridlington for sending in a program that'll give you 254 lives and 255 grenades.*


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TASK FORCE

Ian Hoare, the programmers' pin-up, is back with Task Force and a pile of your phantastic programming hints'n' tips.

Away we go with another page of goodies that'll get your programming fingers tingling. But before the off, I'd like to make a correction to one of the routines in *YS* 1. You'll remember we had a listing of a routine for accessing a string variable from within machine code. As **Pete Erskine** from Colchester points out, there's a bit missing from the end!

```
0075          INC HL
0080          LD  C,(HL)
0085          INC HL
0090          LD  B,(HL)
0095          INC HL
0100          RET
```

Pete's also sent in a couple of short Basic routines that let you save SCREEN$ without the tape message wiping out the bottom two lines, and load without the loading message corrupting the screen. In each case, Pete does it by interfering with the normal channel information so that the Speccy's printing gets diverted. But be careful when you're using these routines — you must remember to POKE everything back to normal if, for example, you get a tape loading error — not that you'll be able to see the message!

```
10 REM Load or draw yr 24
line screen
20 LET c= PEEK 23631+256*
PEEK 23632
30 IF INKEY$ ="" THEN GO
TO 30
40 LET a= PEEK c: LET b=
PEEK (c+2): POKE c,111:
POKE c+2,20
50 SAVE "PIC" SCREEN$
60 POKE c,a: POKE c+2,b
```

This does a neat job of saving the whole screen. And here's a typical example of how you might want to handle a loading screen.

```
10 CLEAR 24499: LOAD "" SC
REEN$: REM loading screen
20 LET c= PEEK 23631+256*
PEEK 23632+5: POKE c,111
30 LOAD ""CODE: REM game
code block
40 POKE c,244: REM restore
CHAN 2
50 RANDOMISE USR 24500 :
REM start game
```

Pete wonders if there's an easy way in machine code of adding extra elements to a 2 dimensioned array without redimensioning it and so losing all the data. I've got some ideas up my sleeve, but let's see what you come up with first.

***Ray Taylor* from** New Cross in London has sent in an even easier method of saving a screen to tape that gets round any problems with messages. I quote, 'The idiot who wants to save the whole screen$ should put:
POKE 23636,181:
SAVE "screen" SCREEN$

And adds, 'It'll then cut out the start tape thingy . . .'. Thanks Ray — shame it doesn't work!

Ray's also sent in an interesting routine for all of you with ZX or Alphacom printers. Try this:
10 INPUT "Enter Text ";a$
: FOR n=64 TO 71: POKE
23681,n: LPRINT a$: NEXT n
According to the manual 23681 is a system variable which is *not* used! But in that excellent book by Steve Kramer, *The Spectrum Operating System*, it says that it's the high byte of PR CC, the address of the printer buffer. See if you can work out just what's going on!

Another Pete, this time ***Pieter van Dijk*** (get your finger out Pieter!) from Wassenaar in Holland has sent in a one line Basic program to give a complete Hex dump. It's rather a *loooong* line but just take a look at what it does. By the way, Pieter points out that you should not change the line number — unless, of course, you're prepared to change all the POKEs of 23618.

```
1 BORDER 0: PAPER 0: INK 7
: CLS: INPUT "start addres
s: ";s: POKE 23618,1: POKE
23620,9-9*(s<0 OR s>65535)
: LET s=0: LET s=INT s: LE
T t=4: POKE 23618,1:  POKE
23620,13+(s=0): LET t=4- I
NT (LN s/LN 10): INK 5: PR
INT 'TAB t;s;TAB 6; INK 6:
LET a= INT (s/256): LET p=
21: POKE 23618,1: POKE 236
20,40: PRINT  b$;c$;:  LET
a=s-INT (s/256))*256:  LET
p=26: POKE 23620,40: PRINT
b$;c$;: INK 7: FOR i=1  TO
7: LET p=32: POKE 23618,1:
POKE 23620,39: PRINT " ";b
$;c$;: LET s=s+1: POKE 236
18,1: POKE  23620,36-28*(s
>=65536): NEXT i: POKE 236
18,1: POKE 23620,9: LET a=
PEEK s: LET b= INT (a/16):
LET c=a-b*16: LET  b$=CHR$
(b+48+7*(b>9)): LET c$=CHR
$ (c+48+7*(c>9)): POKE 236
18,1: POKE 23620,p
```

Pieter makes the point that any mistakes you make typing in this line will almost certainly cause a crash. So make sure you save it before trying it out. This is always a good idea, particularly with a program that contains a lot of POKES.

Now a tip from a professional programmer. ***John Williams,*** who's written business software for the Speccy, writes in to say that there's a very easy way of calling machine code that you've hidden in a string variable, from Basic. But why should you want to put your machine code there? Well, it means that you can save the code as part of the main Basic program which in turn saves loading time. John points out that the system variable DEST contains the address of the 'currently assigned' variable.

Now, let's say that you've put your machine code routines into string variable m$. We'll also assume that you've got three routines there. To be really imaginative, I'll call them Routine 1, Routine 2 and Routine 3. Routine 1 is 30 bytes long, from m$(1) to m$(29), Routine 2 is 60 bytes long, from m$(30) to m$(89) and Routine 3 starts at m$(90). Like all good programmers, you've set up variables R1, R2 & R3 at the start of your program to hold values of 1, 60 & 90 respectively. You've also set up a DEF FN to give a double PEEK as in *YS* 1. You only need a single subroutine in Basic to call all three machine code routines.

```
10 REM M/C calling subrout
ine.
20 LET m$(m)=m$(m): REM to
make m$(m) 'current'
30 RANDOMISE USR FN p(2363
9): RETURN
Rest of program
1000 REM to call Routine 1
1010 LET m=r1: GOSUB 10
More program
3000 REM call Routine 2
3010 LET  m=r2:  GOSUB  10
etc.
```

Now for a bit of machine code from ***Paul Roberts*** who's sent in a couple of routines that'll let you have fun with the screen. The first is a screen clear routine that makes a noise while it clears the screen fairly slowly.

```
0000         ORG  30000
0010         LD   A,65
0020         LD   HL,22528
0030         LD   DE,22529
0040         LD   BC,767
0050         LD   (HL),7
0060         LDIR
0070         LD   HL,16384
0080         LD   B,3
0090  XLOOP  PUSH BC
0100         LD   B,8
0110  BLOOP  PUSH BC
0120         LD   B,8
0130  MLOOP  PUSH BC
0140         LD   B,32
0150  LLOOP  LD   (HL),0
0160         INC  HL
0170         DJNZ LLOOP
0180         LD   DE,224
0190         ADD  HL,DE
0200         CALL SOUND
0210         POP  BC
0220         DJNZ MLOOP
0230         LD   DE,2016
0240         SBC  HL,DE
0250         POP  BC
0260         DJNZ BLOOP
0270         ADC  HL,DE
0280         LD   DE,224
0290         SBC  HL,DE
0300         POP  BC
0310         DJNZ XLOOP
0320         RET
0330  SOUND  LD   B,A
0340         PUSH AF
0350         LD   C,12
0360  SNDLP  PUSH BC
0370         PUSH BC
0380         LD   A,16
0390         OUT  (254),A
0400  DELAY  DJNZ DELAY
0410         POP  BC
0420         XOR  A
0430         OUT  (254),A
0440  WAIT   DJNZ WAIT
0450         POP  BC
0460         DEC  C
0470         JR   NZ,SNDLP
0480         POP  AF
0490         INC  A
0500         RET
0510         END
```

Paul's other routine is a spectacular simulated explosion effect. It flashes the screen in random colours very very rapidly!

```
0000         ORG  30000
0010         LD   B,100
0020  LOOP   PUSH BC
0030         LD   HL,22528
0040         LD   DE,22529
0050         LD   BC,767
0060         LD   A,R
0070         AND  63
0080         LD   (HL),A
0090         LDIR
0100         HALT
0110         LD   A,R
0120         AND  7
0130         OUT  (254),A
0140         POP  BC
0150         DJNZ LOOP
0160         RET
0170         RET
```

So, that's it for this month but do please keep your mega-snippets coming. And if you haven't seen your own contribution here yet, keep your eyes peeled. There's no telling what we'll be up to next month.

Send your programs to Ian Hoare, Task Force, *Your Sinclair*, 14 Rathbone Place, London W1P 1DE.



Illustration: Nick Davies

...great balls of fire! Are you on a blazing trail to win a coffee machine, a Saga 1 keyboard, a mug or even a comet? And no we don't mean one of Bill Haley's crew. Rock on...

Have you seen Halley's Comet yet? Well it's no good rushing to the nightsky now — you're just gonna have to wait till 2061 'cos it only puts in an appearance every 76 years. But don't get cometosed at the thought of hanging about all that time — you can enter our fabulous compo based on Firebird's funster, *The Comet Game*.

The Comet Game is a three stage arcade/strategy in which you have to search for the comet and go on a germ bashing mission. Comet again? You mean you haven't heard Fred Hoyle's famous Germ Theory? Fred reckons that Halley's comet carries a trail of germs in its wake and not a trail of frozen debris. And it's this idea that Firebird has decided to develop in the game.

In the first stage you watch your craft take-off by means of a remote control camera. You can't actually control the spaceship but you can gasp at the amazing 3D vector graphic screen. Stage two is a lot more action-packed. Another computer launches into a bit of grievous verbal violence, the life support system gets blocked, the communication system needs realigning and to top it all, aliens from other planets get a bit narked when you trespass on their space. There's also a coffee machine that needs maintenance.

In fact, the coffee machine is so important that Firebird is offering one as part of the first prize. The winner'll also get an amazing Saga 1 Emperor keyboard, an exclusive comet mug and a snazzy paper comet full of goodies. The nine second prize winners will get a Saga 1 keyboard, a mug and a comet and the 90 runners-up get a comet mug and comet.

All you've gotta do to win one of these mega prizes is peer at the piccy and spot the germs. Put a ring round each one and fill in the coupon. Send the whole lot, or a photocopy, to Spot The Germ Compo, *Your Sinclair*, 14 Rathbone Place, London W1P 1DE. And don't forget to put the number you spotted on the back of the envelope.

Rules

No *YS*: No Comet. The Editor's decision is final and no correspondence will be entered into.
Employees of Firebird and Sportscene Specialist Press are not allowed to enter.
All entries must reach us before the next appearance of Halley's Comet, or 30th April 1986.

☆ COMET COMPO ☆

I killed .... known germs dead.

Name...

....

Address..

.................................Postcode.................................

MICRODRIVIN'

Want to learn everything there is to know about the microdrive? *Andrew Pennell* is your microdrivin' instructor.

Are all microdrive systems as unreliable as mine? I've bought eight cartridges and of those four failed after very little use. The main problem is the cartridge jams solid and I can't get the minimum 85K even after repeated formats. Can you advise me on how to avoid or reduce the problem and is there any way I can unjam the cartridges myself?
Chris Clayton, Carlisle

In a few words, no, yes, no. No, most microdrive systems are fairly reliable though if you get one that isn't, like yours, they tend to be very bad indeed. I reckon your microdrive is poorly aligned internally so it's pulling the tape through incorrectly — if it becomes folded it'll jam. You'd be wise to get a replacement microdrive. Never try to open up a cartridge to unjam it; they're impossible to put back together, and anyway you'll destroy all evidence that the cartridge was faulty. Always take them back to your dealer for replacement.

I'm using HiSoft MONS to debug *Running Repairs* and it crashes as soon as the Interface 1 ROM is paged in. Can you tell me why and is there a new version, or monitor, that'll do this? Also you used Macros in the source code — I've tried this with GENS3 and it doesn't work. Finally, is there a simple way of switching between Basic and Interface 1 ROMS?
MJP Lehmann

Well, the reason MONS (and all other debuggers that I know of) crashes when the ROM switches is that the ROM calls made by it to print characters, read the keyboard etc suddenly do very different things. For example, RST 10 which prints a character in the Basic ROM will call some random location when executed in the Interface 1 ROM. The version you require to assemble Macros is GENS3M21 and you can get an upgrade from HiSoft. To switch into the Interface 1 ROM use these instructions:

```
LD HL,PAGOUT
LD (HD 11),HL
RST 8
DEFB 32H
PAGOUT POP HL
POP HL
```

and to page Basic back in do:

```
CALL 700H
```

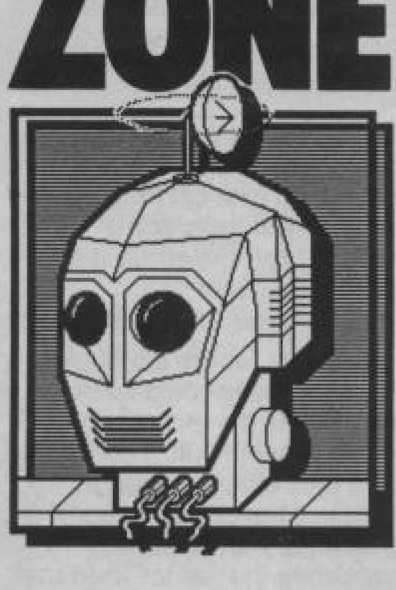
Is there any way to change the name assigned to a cartridge with the Format command without reFormatting it and losing the data?
Nigel Poore, Upminster

I can't for the life of me think why you'd want to do this but it's technically extremely difficult. The name of a cartridge is stored in 10 bytes of the sector header, that bit of the tape that precedes the sector itself that holds the data. The format routine writes both the header, containing the name and blank sectors. To change the header without destroying the data that closely follows it would require very accurate timing — this'd be nigh on impossible on cartridges that have wide operating tolerances. The only way I can think of doing this is to Format a new cartridge with the name you want, then copy the files off the old cartridge onto the new one.

I'm having problems transferring mainly Basic programs to microdrive. I keep getting the dreaded 'Out of memory' error when trying to load. Can you tell me why?
Corporal A Jessop

The cause of the error is twofold. Firstly the awful syntax for microdrives takes up more valuable bytes than the cassette version and secondly the Interface 1 requires around 300 bytes extra workspace while doing the load. The solution is to make the Basic as small as possible, by replacing numbers with VAL, though this can get tedious for large programs. To help you with this I can recommend the utilities available from LERM that include many useful conversion programs and a VAL creator that can save a whole Ks worth of memory of large programs. They also supply various help sheets to make specific microdrive conversions easier.

HACK FREE ZONE



It's Hex Loader, the hexpert you've all been hexpecting. Back to put a hex on all your hints 'n' tips for hack-free hexcitement.

Bzzzzzzzt. Click. Hellooooooo! Guess who? Yep, it's the Hex Loader Show, starring yours truly and a cast of thousands. (This means *you*, chummies.) Bouncing back with all the hints'n'tips for all your arcade faves, another part of **Paul Harkin's** solution to the marvellous *Marsport*, a fair sized dollop of stuff from the rest of you, plus the usual helping of acid comment, mickey extraction and ego inflation from little old me. (Simper. Squeak. Ahem.)

First off, let's get you a bit further advanced with *Marsport*. Last month I left you on laxa level, Sector C4 with a gas mask you'd just made in the factor. Okay, here we go again. Take it away Paul Harkin, my little cheese and mayo sandwich.

"Enter the danger room and the gas mask will protect you. Leave it in the locker for future use. Now go to A1 and enter Ice Cream. The cornet gives access to the Music room on Farr level A1 and the ice pack gives access to the Hot House on Gill level C1. You'll find a mute and a lute in the Music room — reserve these for future use. Go to the map room on laxa G1 and take the Earth map — this is the key to the Soil Depot on Gill level. From Gill A3 you can take the up tube to Alba level. If you look around Alba you'll find four Vidtex screens: these'll give you clues about objects you'll need to get you through the Astronomy room safely. 'My first is what surrounds' — this is the frame from laxa E1. 'My second is the centre' — this is the sunchart from the map room. 'My third is clear to see' — this is the glass from laxa H4. 'Put together it's safe to enter' — this means factorise these objects to make an eyeshield — use this to go through the Astronomy room.

"From I3 take the down tube to Byer level. In the Oratory you'll find a dais, manifesto, pointe and projector. These'll come in useful later so don't lose them. You'll find the Bankers on Byer level, (the key's the dough from the Bakery on Daly level) where you'll find the 2nd key to M-Central. The 1st key's on Alba D1 in the director's office. Take the down tube from Byer C3 to get to the Joly level. Enter the safety room and get the boots and earmuffs — the boots give access to the Chemists on Daly C3. The earmuffs give safe passage through the danger room on Gill B1. To get through the Radiation room on Byer, combine the lute and the dais, an anagram of lead suit! To get to Coma level take the up tube on Gill F4.

"Go to Coma A2 and you'll see a room with a punctured outer wall. To get through here safely get the oxygen from the Chemists and the empty tank from Alba A1. Factorise these to get an air tank — take this back to Coma A2 and proceed through the danger room. (It's best at this point if you have the steps from B4 and the machines from Byer level.) Now go to Coma G2 and take the down tube to Farr level. The 3rd key to M-Central is on Farr G2. Go to G3 and enter the Games room. Here you get a Vidtex message: 'The key is the game; the game is the key.' Put the steps and the machines in the factor to make a game. (The machines are calculators, which are adders, which are snakes — snakes and ladders! Geddit?) Put the game in the key unit and proceed out of the exit. On Farr C3 there is a down tube to Hale level. With all three M-Central keys take this route: go to A3 and enter Control. Put key 1 in the key unit. Now go to H4 and put in the 2nd and 3rd keys. You may now enter M-Central. Proceed to the other exit and you'll get 99% and will have completed Phase 1."

Phew! Hey, hold it! You mean to tell me that's just Phase 1? There's more? Oh well, it looks like you'll have to wait till next time to see the *final* solution. What a shame! (Heh-heh).

I've been getting letters about *Pyjamarama* lately, like my mate **Fergus Clerkin** of Co. Monaghan, **"It was a cold day in November when I went to the newsagents to get *Your Spectrum*..."** Hey, Fergus, it's *Your Sinclair* now! Please go on. **"Later on that night I sat staring angrily at a pair of scissors that I could not get, your magazine ripped to shreds beside me. I'd like to shake James Fitzpatrick warmly by the throat! How *do* you get the scissors?"** I also heard from my favourite game-playing grandmother from Inverness-shire (Ptui! That's hard to say!) **Mrs B Cameron. "As a complete beginner to the Speccy (and a Gran) I am hooked on games. I see James Fitzpatrick has given me a few tips on *Pyjamarama*. But help help help! I can't pick up the scissors or get into that 'blasted' rocket. I can get the hammer to the extinguisher to get to 'hell' (?) only to be wiped out by a fireball! Sometimes I pick up the laser gun and fill it with the power pack but by then I'm dying. My highest score is 64%"** Not bad Mrs C, but hey! Don't trouble yourself about the scissors, they're not important to finish the game. If you've got the power pack your gun is full, so drop the power pack where you found it. Now go through the hole in the floor. Go to the rocket room with a full gun and full petrol can. Once you're on the moon the aliens will allow you to get to the door because of your gun. I won't spoil the last bit for you but I will tell you that you have to jump at the magnetic lock. I hope that furnishes you with happy pyjamas! Zing!

Next is Odin's epic *Robin Of The Wood*. Super cool **Sudi** of Ashton-under-Lyne says that, **"Around the forest you'll see rocks with arrows on them. All these lead to important places. Hold a flower when you pass a witch and she won't take your gold. Give the Ent 15 bags of gold and get a sword, a bow and three charmed arrows. In the Kings Castle the arrow on the rock points to the tournament. Give three flowers to the witch to get to the castle. If you meet a Hermit or give two flowers to the witch your energy will go back to maximum. You can gain lives by collecting laurel wreaths. To finish, find a door in the Castle with an arrow pointing to it."**

Kevin White of Southampton dropped me a note (Boing! Hmm, a D sharp over middle C, I reckon) to say this **"In *Back To Skool* I was chasing a mouse in the Blue Room when something weird happened. Go to the end of the Blue Room, turn around and face the door, then press C. The screen scrolls, and if you keep pressing C you can watch the Girls Skool."** Naughty! **"One problem with doing this is that you can't see yourself and you have to guess your way down to the playground door. Only when you get to the Girls Skool do you reappear."** I should treat this like a UFO if I were you, Kev. Just say to yourself, 'I saw something... but I don't know what it was!" More from Kev next time.

Right On, Commander! Another note (this time a low F) from Elitist Commander **Mike Jones** of Southampton. **"Dear Hex, thanks for the faberoonee column..."** Faber-*whatee*? Listen Commander Chummy, I do the wordplay in this column. Okay. **"Here are my tips: docking is a pain in the load bearing regions of the lower body. (Not yer feet, stupid!) The most vital acquisition is therefore a Docking computer, followed by an ECM system and front beam lasers, then fuel scoops and cargo bay extensions. As soon as you can afford it get a military laser; they really do the business. If you want to make money and improve your rating, trade in narcotics between rich industrial and poor agricultural planets. With an extended cargo bay you can make 4000 credits a run! Pressing F whilst in pause mode and then using hyperspace launches you into witchspace where you'll be attacked by Thargoid ships. Destroy them (oh yeah?) and scoop up the static Thargoids and you can sell them as alien items. There are five missions in the game (as opposed to two on the original Beeb version). The first mission is given to you after 12 'Right On, Commander!' messages. The object of the mission is to rescue refugees from a planet whose sun is going nova, and take them to a safer place in the galaxy. You get 100 gemstones if you're successful."** And you get every cell in your body bursting at the speed of light to opposite ends of the universe if you're not! Gee thanks, Mike!

Namecheck! Oh gohd I'm so popular that all my little fruitcakes who write to me don't all get a mention; frankly my column would have to be as thick as the whole mag to fit all your tips in. So, here's a quick hello to those of you who I didn't have room for but who deserve a mention for their prowess. (Deep breath) **Nik Taylor** of Middlesbrough, **Craig McArthur** of Renfrew, Scotland, **Mike Barton** of BFPO 29 (Germany?), **James Ingram** (grovel, scrape) of Northampton, **Owen Dunn** of Wellingborough, **M. Jeanes** of Merseyside, **Martin Chadderton** of Royton Nr. Oldham, **Harry Payne** of Coventry, **Gordon King** of Fife and... SNAP! Argh! I've blown a chip, I'll have to Quit now. Look, this is important. Send me your picture and Hi-scores and Tips, and I'll make you a star in Hex's Heroes... no time... can't explain... Rosebud... the name of the killer is... argh!

Click... Bzzzzzzz...

While Hex is repairing himself for next issue you can write to the computer generated ego massage at Hex Loader, Hack Free Zone, *Your Sinclair*, 14 Rathbone Place, London

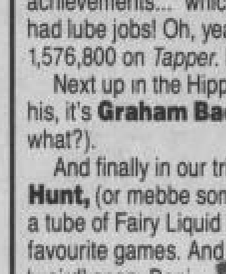
HEX'S HIPPOES

Fzzt! Ow! Wotchit, mate. You can't just go 'round poking screwdrivers into people's innards like that! Wodger mean I forgot Hex's Heroes? I would never forget those valiant lads, lasses, snowmen and feet! Nevah!

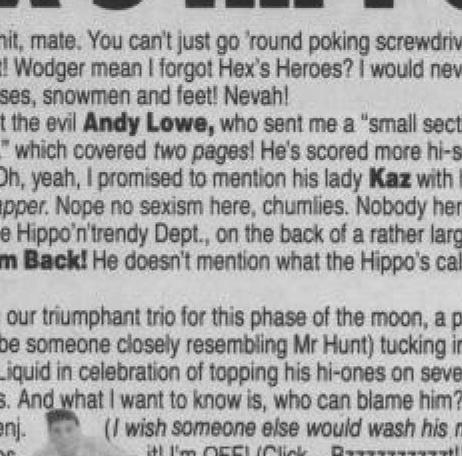
'Specially not the evil **Andy Lowe**, who sent me a "small section of my achievements..." which covered *two pages*! He's scored more hi-scores than I've had lube jobs! Oh, yeah, I promised to mention his lady **Kaz** with her hi-score of 1,576,800 on *Tapper*. Nope no sexism here, chumlies. Nobody here but us robots.

Next up in the Hippo'n'trendy Dept., on the back of a rather large pink mate of his, it's **Graham Back!** He doesn't mention what the Hippo's called. (El Hippo or what?).

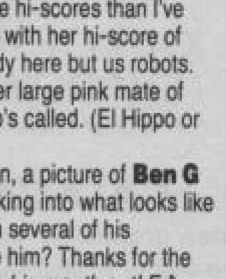
And finally in our triumphant trio for this phase of the moon, a picture of **Ben G Hunt,** (or mebbe someone closely resembling Mr Hunt) tucking into what looks like a tube of Fairy Liquid in celebration of topping his hi-ones on several of his favourite games. And what I want to know is, who can blame him? Thanks for the 'weird' snap, Benj. (*I wish someone else would wash his mouth out! Ed*) Right! That does it! I'm OFF! (Click... Bzzzzzzzzzzt!)



Andy Lowe
Commando/1,575,820



Graham Back
Frankie/92%



Ben G. Hunt
The Way Of The Exploding Fist/222,800

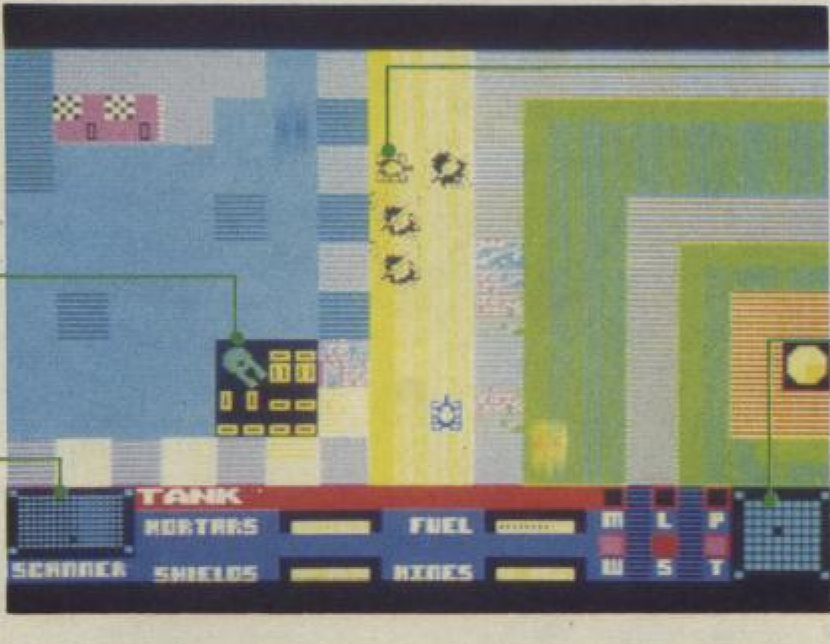
PANZADROME

Panzadrome Tips from K.A. Sherman, Salisbury.

● Red Tanks! Urgh! These vicious little devils can shoot for miles, and through walls too! The trick is that they can only shoot in eight directions, so the further you're away, the more chance you stand of getting in between their powerful blasts. Try to lead them into mines, 'cos you can see them, and they can't.

Megaturrets? Yeah, I dream about them too, big ugly ones crowding me into a corner and zapping me to shredded wheat. Some are too deeply embedded into the scenery, but some are on the next character square, and so can be easily nuked. Banzai! Take that you rotters! (Heh heh)

Mine Scanner. Invaluable piece of kit. D'you know, I spent the first two hours playing this game wondering why I kept getting nuked without being shot at on certain screens. Weeeeeelll, there are certain screens that are heavily mined for your entertainment. Keep a beady eye on this readout, as it could make the diff between getting zapped to shreds and finishing the game.



Some persistant little beggars hang about in single file corridors and won't let you past. Although it's a temptation to hang about and get blasted waiting for them to move off the screen, *don't!* They'll destroy you nine times out of ten, so go off and find another route. When you've found a polycrete module you can nuke them with pleasure and just patch up the hole in the ground with polycrete.

The playing area is an eight by eight grid, as indicated by this long range scanner. So, if you take 'x' to be the horizontal axis, and 'y' to be the vertical axis (with x0,y0 at the bottom left) you begin the game on the bottom row at x5,y0. There are two factories nearby; one at x3,y3, but ignore that at first, 'cos it's too well protected by that blasted Megaturret! Go through the field opposite this first one, and make your way to the next one on x6,y5.

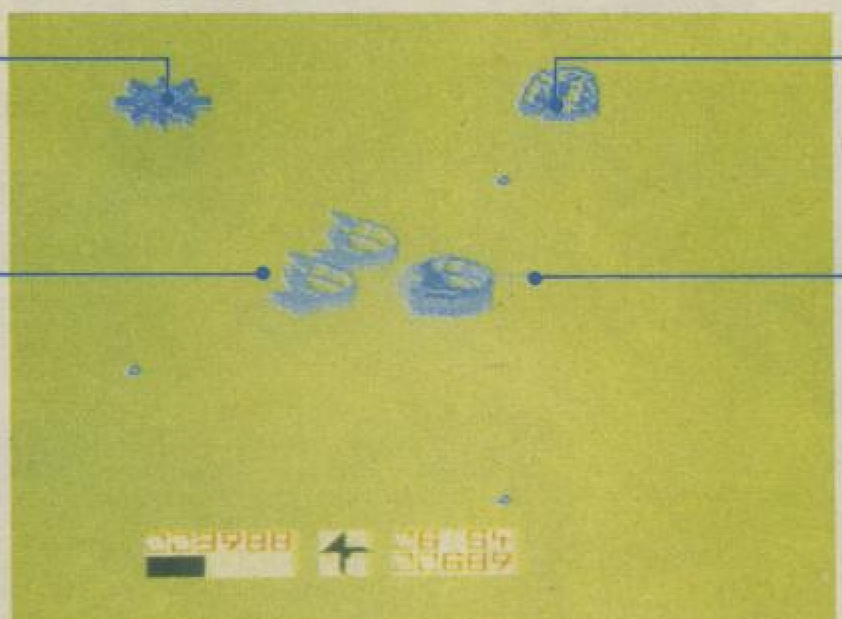
CRITICAL MASS

Driving lessons by R.T. Choake, Wigan.

Roving mines are the greatest hazard to your force field. Watch your pointer and avoid them at all costs or you'll run out of replacement ships before you reach the shield wall at the end zone.

If you get imploded and find yourself on jetpack power, you're at the mercy of the giant earthworms. They'll burrow out of the sand right under you, so *keep moving!* If you're in mid air, you can actually steer around them without landing but this requires a little practice.

●The best tactic for getting to the end zone is the simplest; just belt to the right as fast as you can. If you can zap at least one of the spongy things in the first zone then so much the better for your score. The best zones to zap things are the ones with enemy ships — zap them if you must, but try not to divert from your course too much. Time and speed are of the essence.



Rocks aren't too much of a problem, but avoid them if possible. They could run down your force field just when you need it.

Don't waste energy on your High Density Light Phaser. You'll not only run down your energy, risking implosion, but there's really no reason for you to shoot unless an enemy blocks your path.

●When you finally get to the end zone, you must also keep moving, as the clouds of disorientation will shove you into the nearest mine. If they get you into a tight spot, race down along the shield wall to lose them and try again at another gateway.

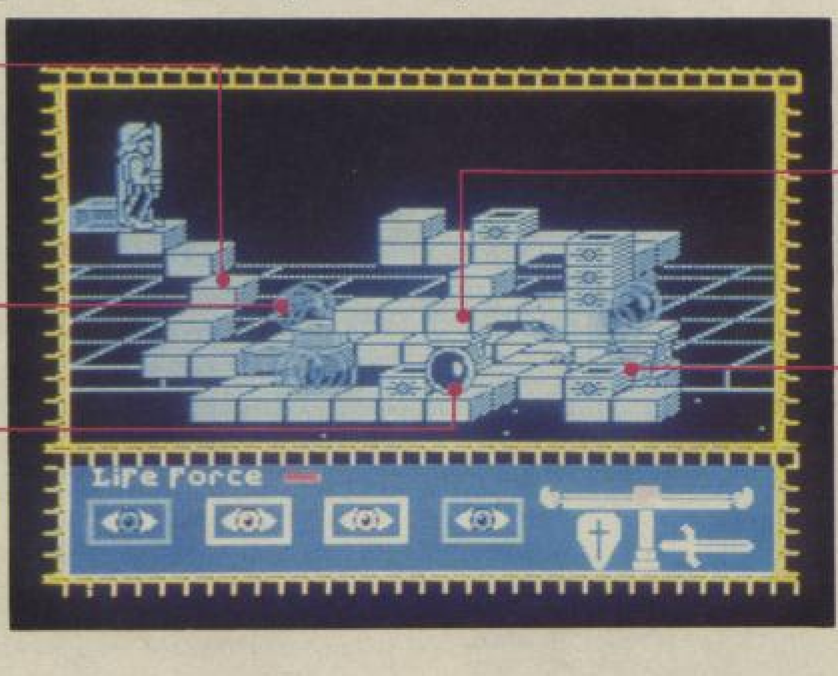
RAH RAH RASPUTIN

Megahints supplied by Paul McCartan, Tramore, Ireland.

Hah. This is the bold step. Even to start on this screen you need to do some fancy footwork. Walk to the very edge of the step above, hold yer nose and jump. Well just walk forward actually, and you should just grip the edge with your toes. From there on, chumski, it's just one foot in front of the other; you remember how to do that don't you?

This game really has more turntables than Radio One. It's not easy to remember which way you're going when you're being turned around like this, but it can be done. The trick is to jump at right angles to the direction you want to go.

Balls! Killer balls that is. How to foil these refugees from a bowling club, there's the rub, though. It's okay there's a method. Stand your ground and let them come for you. At the last possible minute bring your shield up to protect yourself, then let them have it with your sword. They'll bounce off your shield and into the air — gotcha. While they're in mid air poke them (how dare you mention POKEs in this column!) with your trusty blade and *pop!*

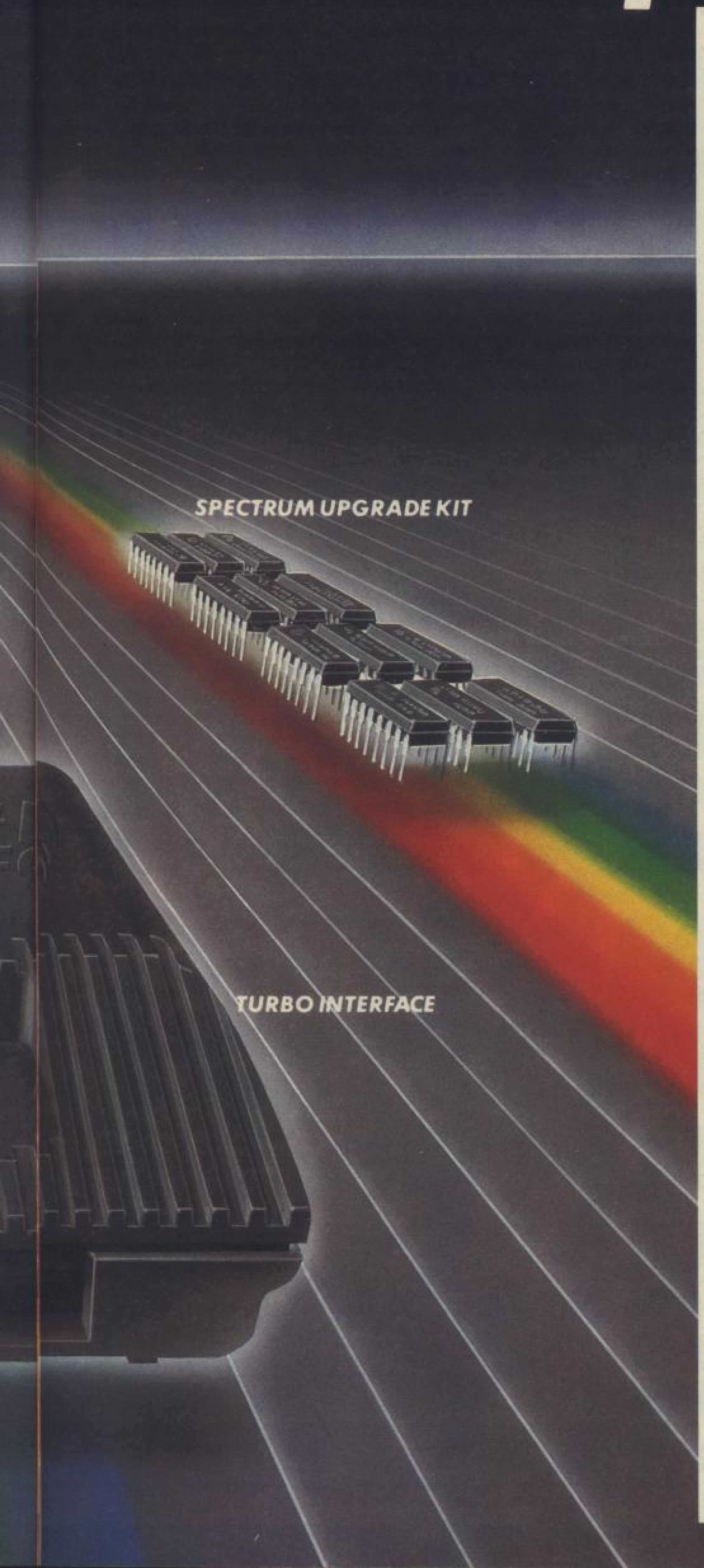


Do battle with the deadly spheres on this level and on the front row. You gotta have some elbow room to neutralise these 'orrible orbs, for timing and quick reactions are your only allies.

It's a good idea to go here and check out this box first as killer balls tend to get trapped in this corner and it's nigh on impossible to nuke them in such an enclosed space. Try the box on the back row then the stack of three. Finally, drop down onto this level and from here go for the last one on the front row.


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QUICKSHOT II AUTO RAPID-FIRE JOYSTICK
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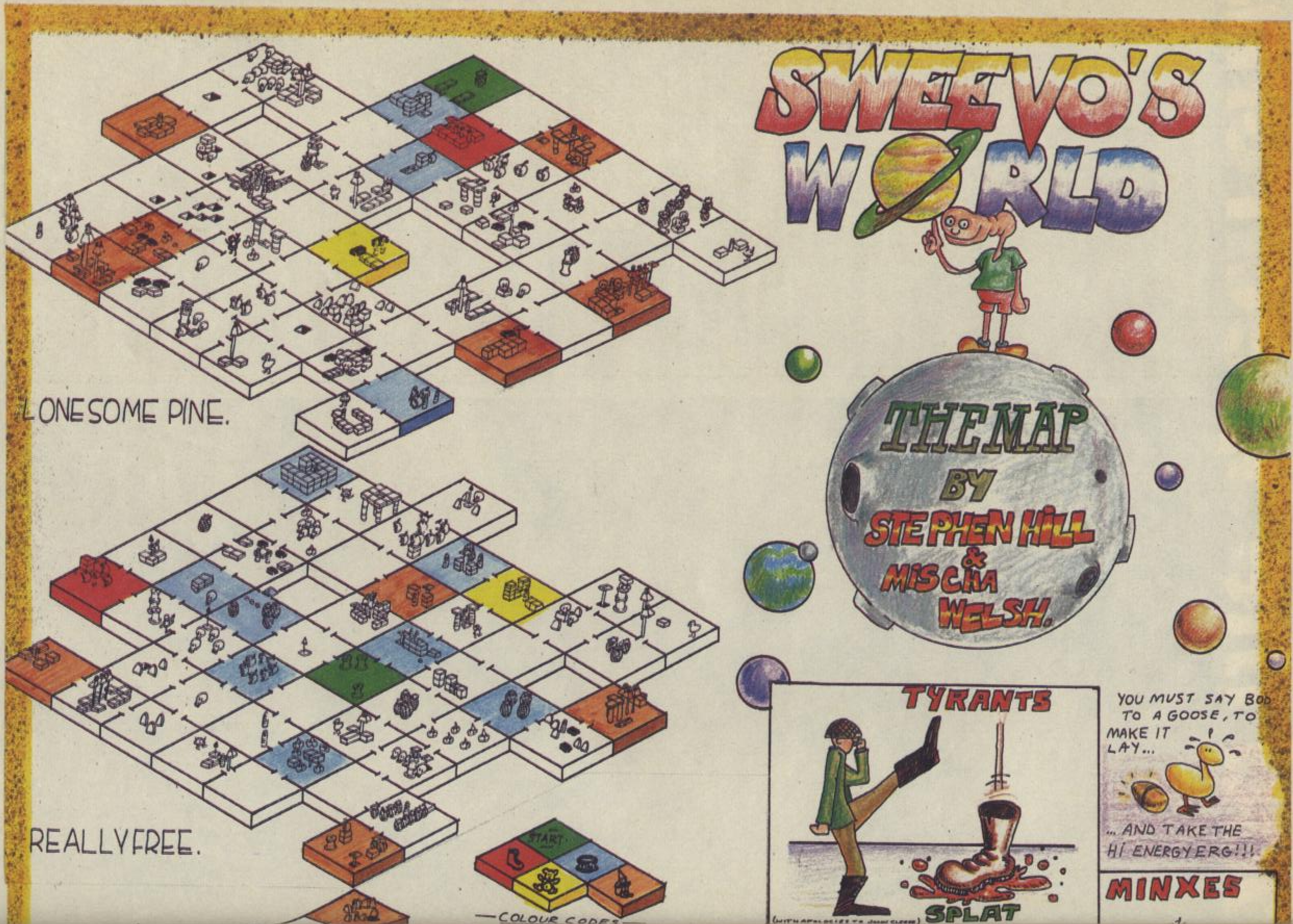
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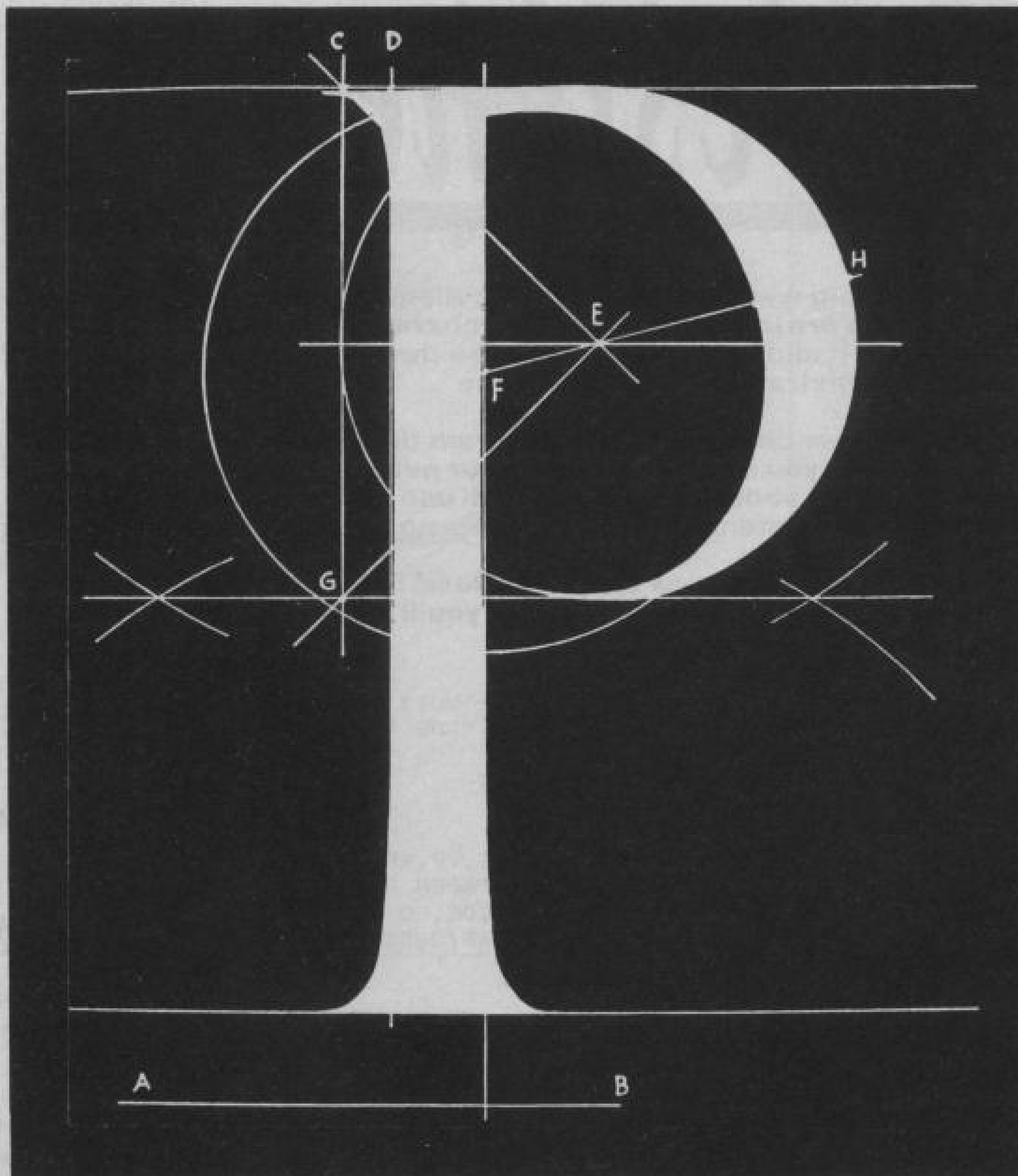
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THE MAP BY STEPHEN HILL & MISCHA WELSH.
LONESOME PINE.
REALLYFREE.
START
— COLOUR CODES —
TYRANTS
SPLAT
(WITH APOLOGIES TO JOHN CLEESE)
YOU MUST SAY BOO TO A GOOSE, TO MAKE IT LAY...
... AND TAKE THE HI ENERGY ERG!!!
MINXES



PROGRAM POWER

PULL-OUT
+
OPPORTUNITY KNOCKS

YOUR CHANCE TO VOTE FOR THE BEST READER'S PROGRAM

Font Designer

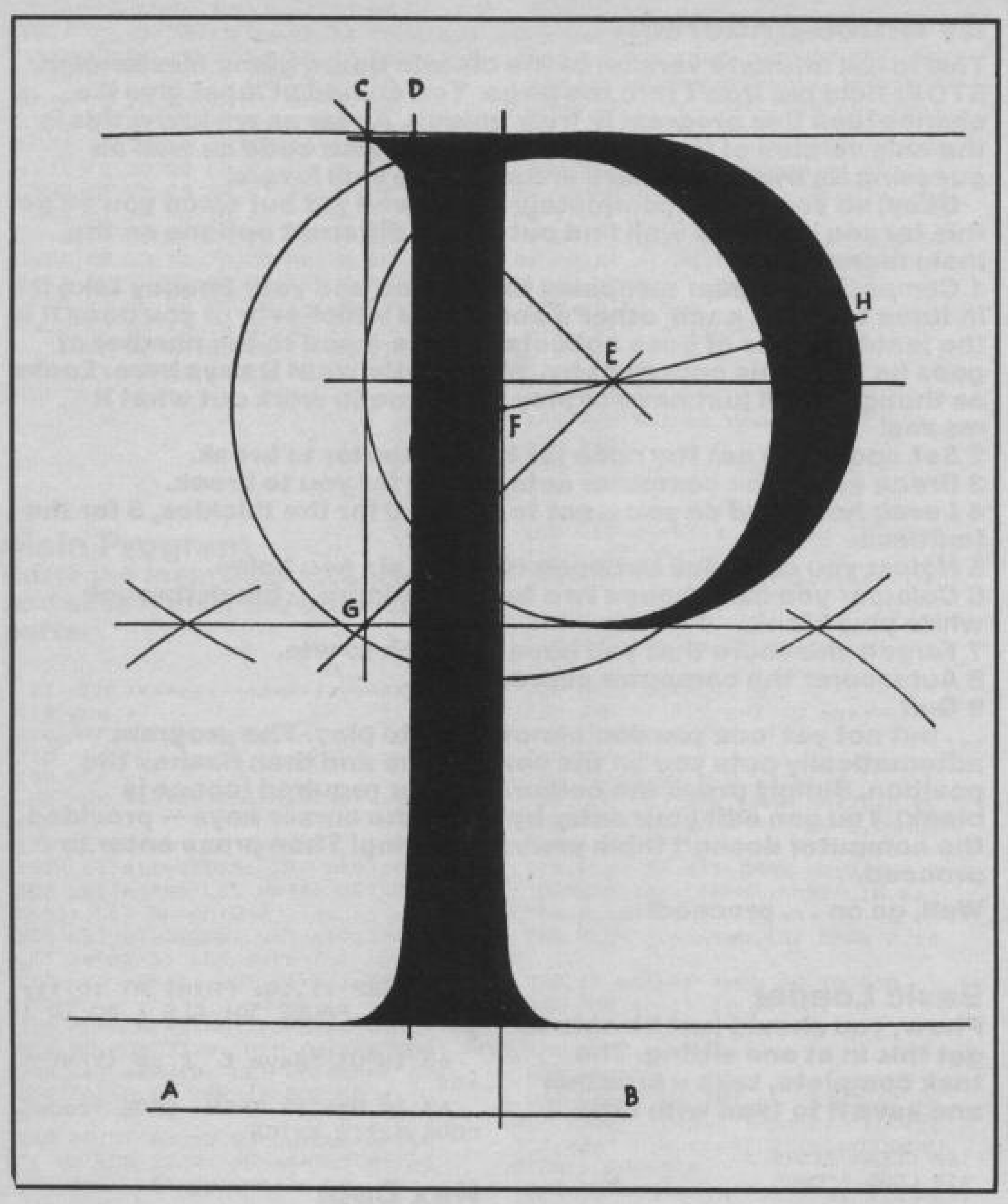
This program is available on Digi'T'ape

YS *MegaBasic*'s back — in a big way! Lee Privett's excellent utility is designed for all of you who are looking to add more character to your *MegaBasic* programs — it allows you to change the three character sets, Spectrum, Amstrad and BBC within the *MegaBasic* system.

Once you've defined your new characters, the program then allows you to save them off so you need never lose your new creations. And if you're worried about how to make full use of the program — don't. It's completely menu driven so there's no need for copious instructions here.

Before you type the listing in, make sure that *MegaBasic* is installed or you won't get further than line five where you'll meet the first *MegaBasic* command.

```
   1 REM FONT  DESIGNER
   2 REM BY LEE PRIVETT
   3 REM COPYRIGHT 1985
   4 :
   5 PCLEAR: CLEAR 35999
   6 SET
   7 FRONT
   8 MAIN
   9 :
  10 @FRONT
  11 PAPER 0: BORDER 0: INK 6
  12 BRIGHT 1: OVER 0: CLS
  13 DRAW 255,0: DRAW 0,175
  14 DRAW -255,0: DRAW 0,-175
  15 INK 7:STIPPLE_7
  16 MODE_4
  17 PRINT AT 1,6;"FONT DESIGNER
"
  18 MODE_3: INK 6
  19 PRINT AT 4,12;"-* BY LEE PR
IVETT *-"
  20 PLOT 0,118: DRAW 255,0
  21 BOX_7,56,11,9,4,1,0
  22 CURRENT_2
  23 MODE_2: INK 2: LET T=14
  24 PRINT AT 10,T;"1) SELECT FO
NT"
  25 INK 3
  26 PRINT AT 12,T;"2) EDIT CHAR
ACTER"
  27 INK 4
  28 PRINT AT 14,T;"3) SAVE SELE
CTED FONT"
  29 INK 5
  30 PRINT AT 16,T;"4) LOAD FONT
"
  31 INK 6
  32 PRINT AT 18,T;"5) QUIT PROG
RAM"
  33 ENDPROC
  34 :
  35 @MAIN
  36 LET END=0
  37 REPEAT
  38 GETKEYS_49,53
  39 BOX_3,40,4,2,12,1,40000
  40 INK 7
  41 IF KEY=49 THEN WHICH
  42 IF KEY=50 THEN EDITFONT
  43 IF KEY=51 THEN SAVEFONT
  44 IF KEY=52 THEN LOADFONT
  45 IF KEY=53 THEN LAST
  46 IF KEY=89 THEN  LET END=99
  47 PUTBACK_40000,2,12,4,40
  48 UNTIL_END
  49 CLS
  50 ENDPROC
  51 :
  52 :
  53 @LAST
  54 PRINT AT 1,8;"QUIT PROGRAM"
  55 PRINT AT 2,4;"ARE YOU SURE
Y/N"
  56 GETKEYS_78,89
  57 ENDPROC
  58 :
  59 @BOX_WI,LO,DE,YP,XP,PA,ME
  60 CURRENT_WI: PAPER PA
  61 WINDOW_YP,XP,DE,LO
  62 GET_0,ME,YP,XP/2,DE,LO/2
  63 CLW_0
  64 INK 9
  65 PLOT (4*XP),(22-YP)*8-1
  66 DRAW (LO*4)-1,0
  67 DRAW 0,-((DE*8)-1)
  68 DRAW -((LO*4)-1),0
  69 DRAW 0,(DE*8)-1
  70 ENDPROC_BOX
  71 :
  72 @PUTBACK_ME,YP,XP,DE,LO
  73 PUT_0,ME,YP,XP/2,DE,LO/2
  74 PLAY_0,50,2,6,1
  75 ENDPROC
  76 :
  77 @SAVEFONT
  78 PRINT AT 1,2;"SAVE TO DRIVE
 (D)"
  79 PRINT AT 2,2;"OR TO CASSETT
E (C)"
  80 GETKEYS_67,68
  81 BOX_4,56,3,4,4,2,41450
  82 PRINT AT 1,4; INK 6;"TYPE N
AME OF FILE PLEASE"
  83 INPUT  LINE N$
  84 IF KEY=67 THEN  SAVE N$CODE
 RAMLOC,760:SIDE: INPUT "REWIND
& PRESS ENTER TO VERIFY"; LINE A
$: VERIFY N$CODE RAMLOC,760:EDIS
  85 IF KEY=68 THEN  SAVE *"M";1
;N$CODE RAMLOC,760: VERIFY *"M";
1;N$CODE RAMLOC,760
  86 STAY_5
  87 PUTBACK_41450,4,4,3,56
  88 STAY_6
  89 ENDPROC
  90 :
  91 @SIDE
  92 GET_0,36000,0,0,21,18
  93 ENDPROC
  94 :
  95 @EDIS
  96 PUT_0,36000,0,0,21,18
  97 ENDPROC
  98 :
  99 @WHICH
 100 PRINT AT 1,2;"FONT ADDR:";R
AMLOC
 101 PRINT AT 2,2;"ALTER(A) ESCA
PE(E)"
 102 REPEAT
 103 GETKEYS_65,69
 104 IF KEY=65 THEN EXCHANGE
 105 LET EXIT=0
 106 IF KEY=69 THEN  LET EXIT=1
 107 UNTIL_EXIT
 108 ENDPROC
 109 :
 110 :
 111 @EXCHANGE
 112 PLAY_1,10,10,100,10
 113 IF RAMLOC=48000 THEN  LET R
AMLOC=45000:FONT_2: GO TO 115
 114 IF RAMLOC=45000 THEN  LET R
AMLOC=48000:FONT_1
 115 PRINT AT 1,22;RAMLOC
 116 ENDPROC
 117 :
 118 @EDITFONT
 119 PRINT AT 1,2;"DISPLAY(D) ED
IT(E)"
 120 PRINT AT 2,2;"SIZE(S)   RETU
RN(R)"
 121 REPEAT
 122 GETKEYS_68,83
 123 LET EXIT=0
 124 IF KEY=68 THEN SCR:DIS:BAC
 125 IF KEY=83 THEN SCR:EG:BAC
 126 IF KEY=69. THEN SCR:ALT:BAC
 127 IF KEY=82 THEN  LET EXIT=1
 128 UNTIL_EXIT
 129 ENDPROC_EDITFONT
 130 :
 131 @BAC
 132 CURRENT_3
 133 PUTBACK_36000,3,14,16,36
 134 ENDPROC
 135 :
 136 @SCR
 137 BOX_5,36,16,3,14,5,36000
 138 INK 6: PLOT 60,28: DRAW 135
,0
 139 DRAW 0,119: DRAW -135,0
 140 DRAW 0,-119
 141 ENDPROC
 142 :
 143 @DIS
 144 INK 0
 145 PRINT  INK 3;AT 1,4;"CHARAC
TER  SET"
 146 PRINT AT 3,2;"0123456789!@)
$%&"
 147 PRINT AT 4,2;"'()_<>=+-àè°é
"""
 148 INK 1
 149 PRINT AT 6,2;"ABCDEFGHIJKLM
NOP"
 150 PRINT AT 7,2;"abcdefghijklm
nop"
 151 PRINT AT 9,2;"QRSTUVWXYZ;:.
,#?"
 152 PRINT AT 10,2;"qrstuvwxyz/*
iô\^"
 153 PRINT  INK 3;AT 13,4;"SPACE
 TO EXIT"
 154 GETKEYS_32,33
 155 ENDPROC
 156 :
 157 @EG
 158 MODE_1
 159 INPUT "WHICH CHARACTER PLEA
SE >"; LINE F$
 160 INK 0
 161 PRINT AT 1,4;"THIS SHOWS EX
AMPLES OF EACH "
 162 PRINT AT 2,2;"CHARACTER SIZ
E OF THE LETTER (";F$;")"
 163 MODE_4
 164 PRINT AT 6,2;F$;" MODE_4"
 165 MODE_3
 166 PRINT AT 8,2;F$;"   MODE_3"
 167 MODE_2
 168 PRINT AT 10,2;F$;"    MODE_2
 169 PRINT AT 13,2;"SPACE TO RET
URN"
 170 GETKEYS_32,33
 171 ENDPROC
 172 :
 173 @GRID
 174 INK 1
```




```
175 FOR J=1 TO 8
176 FOR K=1 TO 8: LET KK=K*2-1
177 PRINT AT J+1,KK+4; PAPER 7;
" "
178 IF Q(J,K)=1 THEN  PRINT AT
J+1,KK+4; OVER 1; INVERSE 1;" "
179 NEXT K
180 PLAY_0,1,2,1,10
181 NEXT J
182 INK 0
183 ENDPROC
184 :
185 @ALT
186 DIM Q(8,8)
187 GRID
188 FONT_0
189 PRINT AT 11,2;"USE CURSOR K
EYS"
190 PRINT AT 12,4;"SPACE  ON/OF
F"
191 PRINT AT 13,6;"(E) TO EXIT"
192 PRINT AT 14,4;"(R) TO RETUR
N"
193 FONT_1: IF RAMLOC=45000 THE
N FONT_2
194 CONTROL
195 ENDPROC
196 :
197 @CONTROL
198 LET X=4: LET Y=2
199 LET XX=X: LET YY=Y
200 PRINT AT Y,X; OVER 1;" "
201 REPEAT
202 LET XIT=0
203 GETKEYS_8,82
204 IF KEY=69 THEN OTHERS
205 IF KEY=8 THEN  LET X=X-2
206 IF KEY=9 THEN  LET X=X+2
207 IF KEY=10 THEN  LET Y=Y+1
208 IF KEY=11 THEN  LET Y=Y-1
209 IF KEY=82 THEN  LET XIT=1
210 IF KEY=32 THEN STATE
211 IF X<4 OR X>18 THEN  LET X=
4
212 IF Y<2 OR Y>9 THEN  LET Y=2
213 UPDATE
214 LET KEY=0
215 UNTIL_XIT
216 ENDPROC
217 :
218 @UPDATE
219 OVER 1: PAPER 7: INK 1
220 PRINT AT Y,X;" "
221 PRINT AT YY,XX;" "
222 LET YY=Y: LET XX=X
223 PLAY_1,5,22,14,10
224 OVER 0
225 ENDPROC
226 :
227 @STATE
228 LET P=(X/2)-1: LET L=Y-1
229 IF Q(L,P)=0 THEN  LET Q(L,P
)=1: GO TO 231
230 IF Q(L,P)=1 THEN  LET Q(L,P
)=0
231 PRINT AT Y,X; OVER 1; INVER
SE 1;" "
232 PLAY_1,5,8,12,5
233 ENDPROC
234 :
235 @OTHERS
236 BOX_4,28,6,14,32,2,41450
237 PRINT AT 1,2;"(A) SAVE CHR"
238 PRINT AT 2,2;"(B) GRID CLS"
239 PRINT AT 3,2;"(C) LOAD CHR"
240 PRINT AT 4,2;"(D) CONTINUE"
241 GETKEYS_65,68
242 IF KEY=67 THEN LOACHAR
243 IF KEY=65 THEN SAVCHAR
244 IF KEY=66 THEN  DIM Q(8,8)
245 PUTBACK_41450,14,32,6,28
246 CURRENT_5
247 GRID
248 PRINT AT Y,X; OVER 1;" "
249 ENDPROC
250 :
251 @SAVCHAR
252 CURRENT_5
253 INPUT "CHARACTER TO SAVE ?
"; LINE D$
254 IF CODE D$<32 THEN  GO TO 2
53
255 FOR J=1 TO 8: LET BYTE=0
256 PRINT )0;"  NOW SAVING CHAR
ACTER LINE ";J
257 LET JJ=J-1
258 FOR K=0 TO 7: LET KK=8-K
259 PRINT AT 6,24;D$
260 IF Q(J,KK)=1 THEN  LET BYTE
=BYTE+(2^K)
261 POKE (RAMLOC+JJ+8*(CODE D$-
32)),BYTE
262 NEXT K
263 PLAY_0,5,5,1,20
264 INPUT ""
265 NEXT J
266 ENDPROC
267 :
268 @LOACHAR
269 INPUT "WHICH CHARACTER TO L
OAD ? "; LINE D$
270 DIM Q(8,8)
271 FOR J=1 TO 8
272 LET JJ=J-1
273 LET COAD=PEEK (RAMLOC+JJ+8*
(CODE D$-32))
274 FOR K=7 TO 0 STEP -1
275 PRINT )0;"  NOW LOADING CHA
RACTER LINE ";J
276 LET KK=K+1
277 IF COAD>=2^K THEN  LET Q(J,
8-K)=1: LET COAD=COAD-2^K
278 INPUT ""
279 NEXT K
280 PLAY_1,5,20,40,50
281 NEXT J
282 ENDPROC
283 :
284 @LOADFONT
285 PRINT AT 1,8;"MICRODRIVE OR"
286 PRINT AT 2,6;"CASSETTE  (D/
C)"
287 GETKEYS_67,68
288 BOX_4,56,3,4,4,6,41450
289 INK 1
290 IF KEY=67 THEN  PRINT AT 1,
2;"LOAD TAPE AND PRESS PLAY":SID
E: LOAD ""CODE :EDIS
291 IF KEY=68 THEN  PRINT AT 1,
2;"TYPE NAME OF FILE ON MDV1": I
NPUT  LINE N$: LOAD *"M";1;N$COD
E
292 CURRENT_3
293 STAY_6
294 PUTBACK_41450,4,4,3,56
295 STAY_6
296 ENDPROC
297 :
298 @STAY_TIME
299 FOR F=1 TO TIME
300 PAUSE 10
301 NEXT F
302 ENDPROC
303 :
304 @GETKEYS_LOW,HI
305 LET EX=0
306 REPEAT
307 LET A$=INKEY$
308 LET KEY=CODE (A$)
309 IF KEY>=LOW AND KEY<=HI THE
N  LET EX=1
310 UNTIL_EX
311 ENDPROC_GETKEYS
312 :
313 @SET
314 LET RAMLOC=45000
315 DEFG_"S",255,129,129,129,12
9,129,129,255
316 DEFG_"R",0,0,24,60,60,24,0,
0
317 POKE 23658,8
318 FONT_2
319 ENDPROC_SET
```

CODEBUSTERS

By Bruce Anderson

This is the ultimate version of the classic board game *Mastermind*. STOP! Hold on. Don't turn the page. You should at least give it a chance 'cos this program is truly unique. As far as we know this is the only version of the game that'll guess your code as well as guessing its own. And there are a full five skill levels.

Okay, so you're not completely convinced yet but since you've got this far you might as well find out all the different options on the main menu.

1 *Competition mode:* swopsies time — you and your Speccy take it in turns to break each other's codes and whichever of you does it in the least number of goes collects a score equal to the number of goes he beats his opponent by. Well, that's what it says here. Looks as though you'll just have to play the game to work out what it means!

2 *Set code:* you set the code for the computer to break.

3 *Break code:* the computer sets a code for you to break.

4 *Level:* how hard do you want to play — 0 for the thickies, 5 for the faultless.

5 *Holes:* you can have between two and six peg holes.

6 *Colours:* you can choose two to nine colours — black through white plus blank.

7 *Target:* the score that you have to reach to win.

8 *Autoscore:* the computer scores itself.

9 *Quit* . . .

. . . but not yet 'cos you don't know how to play. The program automatically puts you on the correct line and then flashes the position. Simply press the colour/number required (space is blank).You can edit your entry by using the cursor keys — provided the computer doesn't think you're cheating! Then press enter to proceed.

Well, go on . . . proceed!

Basic Loader

Phew, you should just be able to get this in at one sitting. The task complete, take a breather and save it to tape with LINE 1.

```
100 CLEAR 31599
110 LOAD ""CODE
120 LOAD ""
```

Hex Loader

Here's a turn up for the books — we've actually managed to print a hex loader that loads hex. See *YS 2* for a couple that didn't 'cos they weren't!

```
  2 CLEAR 32767
  4 POKE 23658,8
  6 INPUT "LOAD CODE (Y/N)";A$
  8 IF A$="Y" THEN  LOAD ""CODE
 10 LET ADD=32768
 12 INPUT "Address you wish to
start at? ";I
 14 LET BYTES=I-ADD
 16 LET CS=0
 18 PRINT AT 0,0;"Address:";I
 20 INPUT "8 Hex bytes ";A$
 22 IF A$="" THEN  GO TO 58
 24 IF A$(1)=" STOP " THEN  GO
TO 60
 26 IF LEN A$<>16 THEN  GO TO 5
8
 28 FOR B=1 TO 16
 30 IF (A$(B)<"0" OR A$(B)>"9")
 AND (A$(B)<"A" OR A$(B)>"F") TH
EN  GO TO 58
 32 NEXT B
 34 FOR N=0 TO 7
 36 LET Y=CODE A$(1)-48: IF Y>9
 THEN  LET Y=Y-7
 38 LET Z=CODE A$(2)-48: IF Z>9
 THEN  LET Z=Z-7
 40 LET VA=16*Y+Z: LET CS=CS+VA
 42 POKE I+N,VA
 44 PRINT AT 2,N*3;A$( TO 2)
 46 LET A$=A$(3 TO )
 48 NEXT N
 50 INPUT "CHECKSUM ";CS1
 52 PRINT AT 2,25;CS1
 54 IF CS1<>CS THEN  GO TO 58
 56 LET I=I+8: CLS : GO TO 14
 58 BEEP .1,10: PRINT AT 10,11;
"ERROR": PAUSE 50: CLS : GO TO 1
4
 60 INPUT "Save to tape (Y/N) "
;S$
 62 IF S$="Y" THEN  SAVE "code"
CODE 32768,BYTES
```

Hex Data

Use the hex loader to enter the hex — eight bytes at a time, no gaps, putting in the checksum when asked. Save the code after the Basic loader with SAVE "BUSTCODE" CODE 31600,346. If you want to stop in the middle of a program, enter STOP (Sym + S) instead of the next eight hex bytes, then enter Y to the Save Code option. This saves the code so far. When you run the hex loader again, enter Y to the LOAD CODE option and then enter the address from where you left off.

```
31600 00 7D 1C 7D 04 00 06 05 =293
31608 04 04 00 CD AB 7B 32 79 =678
31616 7B CD D7 7B 32 7A 7B CD =1166
31624 8B 7B C9 E5 D5 C5 F5 3A =1405
31632 74 7B 47 2A 70 7B ED 5B =915
31640 72 7B 7E E6 0F 77 1A E6 =983
31648 0F 12 13 23 10 F4 F1 C1 =781
31656 D1 E1 C9 C5 D5 E5 3E 00 =1336
31664 F5 3A 74 7B 47 2A 70 7B =890
31672 ED 5B 72 7B 4E 1A 91 FE =1068
31680 00 20 0B 79 CB EF CB F1 =1050
31688 77 79 12 F1 3C F5 23 13 =858
31696 10 EA F1 E1 D1 C1 C9 C5 =1516
31704 D5 E5 3E 00 F5 3A 74 7B =1046
31712 47 32 75 7B 2A 70 7B ED =875
31720 5B 72 7B 4E 1A 91 FE 00 =831
31728 20 0B 79 CB EF CB F1 77 =1169
31736 79 12 F1 3C F5 13 05 78 =829
31744 FE 00 20 E7 3A 74 7B 47 =885
31752 23 3A 75 7B 3D 32 75 7B =684
31760 FE 00 20 D3 F1 E1 D1 C1 =1365
31768 C9 F5 C5 D5 E5 16 00 3A =1165
31776 74 7B 3C 3C 5F 2A 72 7B =733
31784 22 72 7B CD 63 7C CD 89 =1041
31792 7C FE 01 20 F3 D5 E5 EB =1331
31800 2A 70 7B 3A 74 7B 06 00 =580
31808 4F C5 E5 ED B0 E1 C1 E5 =1565
```

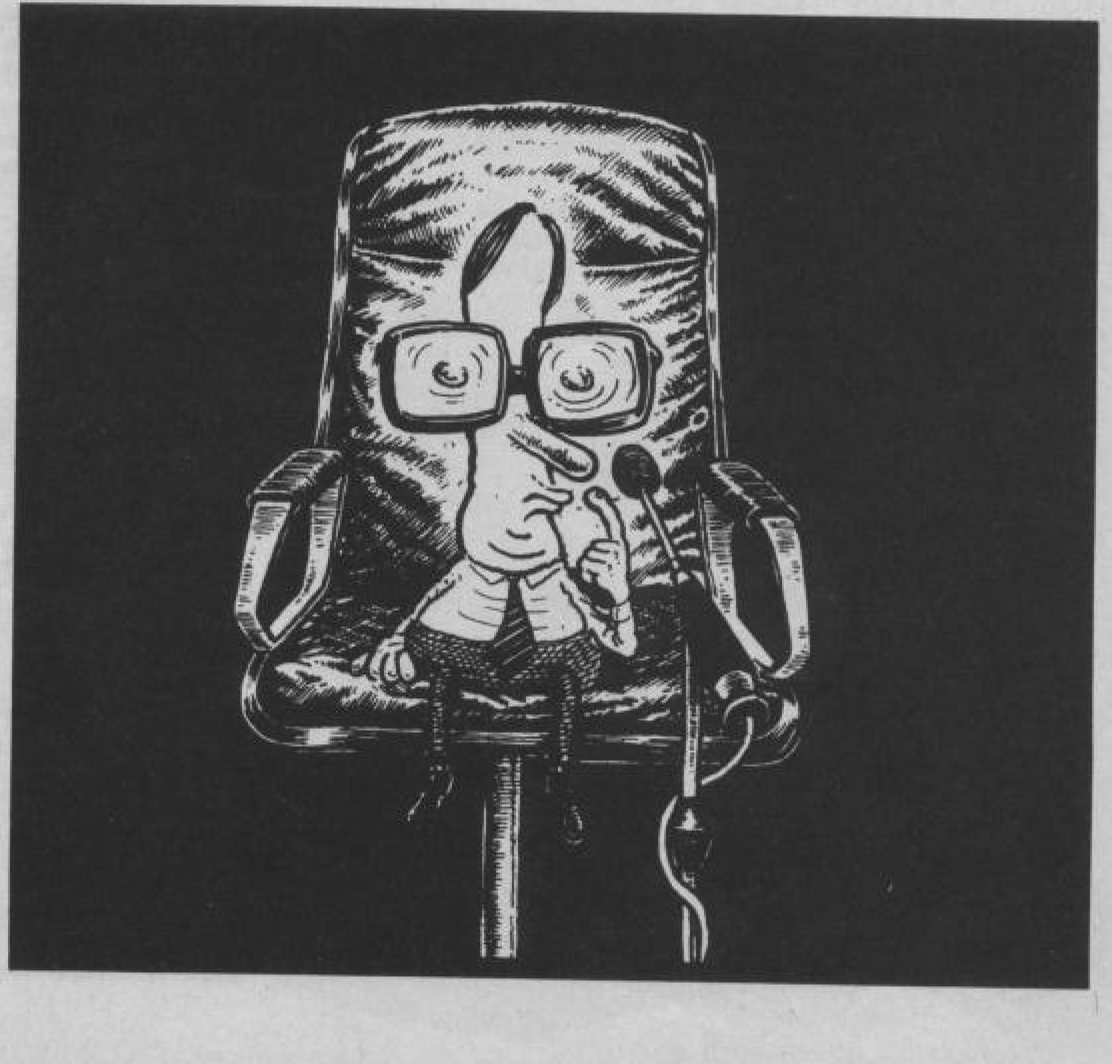
This program is available on Digi'T'ape

```
31816 22 72 7B A7 ED 42 22 70 =887
31824 7B CD 7B 7B E1 22 70 7B =1068
31832 E1 D1 19 22 72 7B E1 D1 =1164
31840 C1 F1 C9 E5 D5 C5 F5 2A =1561
31848 70 7B 3A 74 7B 5F 16 00 =649
31856 19 2B 1D 7E 3C 77 47 3A =531
31864 76 7B B8 20 07 36 00 7B =641
31872 FE 00 20 ED F1 C1 D1 E1 =1391
31880 C9 E5 C5 3A 77 7B 47 3A =1056
31888 7B 7B B8 28 03 F2 9A 7C =990
31896 3D 47 DD 2A 72 7B A7 ED =1036
31904 52 22 72 7B CD AB 7B 4F =931
31912 DD 7E FE B9 20 13 CD D7 =1257
31920 7B 4F DD 7E FF B9 20 09 =1030
31928 CD 8B 7B 10 DD 3E 01 18 =791
31936 05 3E 00 CD 8B 7B C1 E1 =952
31944 C9 00 00 00 00 00 00 00 =201
STOP
```

Main Program

Enter the main Basic program and save it after the other two parts.

```
 100 REM ***********************
 110 REM *                     *
 120 REM *    Codebuster       *
 130 REM *    Bruce Anderson   *
 140 REM *                     *
 150 REM ***********************
 160 REM
 170 LET T=1: LET F=0
 180 LET att=22528: LET mc=31600
 190 LET nc=9: LET nh=4: LET nh1
=nh+1: LET sh=nh*2+4
 200 LET g1=32000: LET gs=g1+nh:
 LET level=3: LET auto=T
 210 LET p0=g1: LET p1=mc: GO SU
B 2260
 220 POKE mc+4,nh: POKE mc+6,nc
 230 GO SUB 2320: REM Define UDG
 240 LET max=10: LET colscn=F
 250 PAPER 6: INK 1: BORDER 4: C
LS
 260 PRINT AT 12,8;"Colour or B&
W": GO SUB 2230: IF a$="c" OR a$
="C" THEN LET colscn=T
 270 REM
 280 REM Get option
 290 REM
 300 INK 2: PAPER 7: CLS : LET c
omp=F: LET a1=3
 310 LET mysc=0: LET cosc=0
 320 PRINT AT 1,10;"CODEBUSTER";
AT 5,10;"1:Competition";AT 6,10;
"2:Set code";AT 7,10;"3:Break co
de";AT 8,10;"4:Level    ";level
 330 LET a$="OFF": IF auto=T THE
N LET a$="ON"
 340 PRINT AT 9,10;"5:Holes    ";
nh;AT 10,10;"6:Colours ";nc;AT 1
1,10;"7:Target   ";max;AT 12,10;"
8:Autoscore ";a$;AT 13,10;"9:Qui
t"
 350 GO SUB 2230: LET val=CODE a
$-48: IF val<1 OR val>9 THEN GO
TO 350
 360 GO TO val*20+350
 370 LET comp=T: INPUT "Your nam
e";n$: IF LEN n$>6 THEN LET n$=n
$( TO 6)
 380 GO SUB 750: GO SUB 540: GO
TO 300
 390 GO SUB 750: GO SUB 890: GO
TO 300
 410 GO SUB 750: GO SUB 1300: GO
 TO 300
 430 INPUT "New level (0 TO 5) "
;level: IF level<0 OR level>5 TH
EN GO TO 430
 440 GO TO 300
 450 INPUT "Holes (2 TO 6) ";nh:
 IF nh<2 OR nh>6 THEN GO TO 450
 460 LET nh1=nh+1: LET sh=nh*2+4
: LET gs=g1+nh: POKE mc+4,nh: GO
 TO 300
 470 INPUT "Colours (2 TO 9) ";n
c: IF nc<2 OR nc>9 THEN GO TO 47
0
 480 POKE mc+6,nc: GO TO 300
 490 INPUT "Target ";max: GO TO
300
 510 LET auto=NOT auto: GO TO 30
0
 530 STOP
 540 GO SUB 890: LET sco=score:
 REM Set code
 550 GO SUB 1300: REM Break code
 560 LET sco=score-sco: IF sco>0
 THEN LET cosc=cosc+sco: GO TO 5
80
 570 LET mysc=mysc-sco
 580 IF mysc>=max THEN GO SUB 84
0: PRINT AT 21,5;"Victory is you
rs": GO TO 610
 590 IF cosc>=max THEN GO SUB 84
0: PRINT AT 21,5;"My CPU was jus
t too strong": GO TO 610
 600 GO TO 540
 610 PRINT #1;"Hit any key": PAU
SE 0
 620 RETURN
 630 REM
 640 REM Set up board
 650 REM
 660 IF comp=T THEN GO SUB 840
 670 INK 0: FOR a=19 TO a1 STEP
-1
 680 LET a$=STR$ (20-a): IF a>10
 THEN LET a$="0"+a$
 690 INK 7: PRINT AT a,2;a$: INK
 0
 700 FOR b=1 TO nh
 710 PRINT AT a,3+2*b;" ";AT a,s
h+b;" "
 720 NEXT b: NEXT a
 730 INK 7: FOR a=1 TO nh: PRINT
 AT 1,a*2+3;a: NEXT a
 740 RETURN
 750 PAPER 4: CLS : INK 7
 760 PLOT 37,13: DRAW nh*24+6,0:
 DRAW 0,140: DRAW -nh*24-6,0: DR
AW 0,-140
 770 PLOT 35,11: DRAW nh*24+10,0
: DRAW 0,144: DRAW -nh*24-10,0:
DRAW 0,-144
 780 PLOT 37+16*nh,13: DRAW 0,14
0
 790 IF comp=F THEN GO TO 830
 800 FOR a=att TO att+31
 810 POKE a,16
 820 NEXT a
 830 RETURN
 840 PAPER 2: INK 6: PRINT AT 0,
0;"TARGET ";max;" Speccy ";cosc;
" ";n$;" ";mysc;AT 21,11;"CODEBU
STER": PAPER 4
 850 RETURN
 860 REM
 870 REM Computers turn
 880 REM
 890 GO SUB 660: LET m1=nc-1: LE
T sp=F: IF nc=9 THEN LET m1=7: L
ET sp=T
 900 LET go=19: LET g1=g1-nh: GO
 SUB 1720: LET m1=7: LET g1=g1+n
h: LET p0=g1: LET p1=mc: GO SUB
2260
 910 LET lb=level+2: IF level=5
THEN LET lb=10
 920 POKE mc+7,lb
 930 RANDOMIZE
 940 LET gc=gs: LET go=1
 950 LET s1=INT (RND*nh1)
 960 GO SUB 1200: GO TO 980
 970 RANDOMIZE USR (mc+169)
 980 GO SUB 2010
 990 IF auto=T THEN LET val=PEEK
 (mc+9): GO TO 1020
1000 PRINT #1;"Blacks"
1010 GO SUB 2160
1020 LET nb=val: POKE (gc+nh),va
l
1030 IF auto=T THEN LET val=PEEK
 (mc+10): GO TO 1070
1040 RANDOMIZE USR 3438
1050 PRINT #1;"Whites"
1060 GO SUB 2160
1070 LET nw=val: POKE (gc+nh1),v
al
1080 RANDOMIZE USR 3438
1090 IF nb+nw>nh OR nb<>PEEK (mc
+9) OR nw<>PEEK (mc+10) THEN PRI
NT #1;"Error": PAUSE 100: GO TO
990
1100 GO SUB 1790: REM Print score
1110 IF nb<>nh THEN GO TO 1140
1120 LET a1=20-go: LET score=go:
 LET go=19
1130 GO SUB 2090: GO TO 1190
1140 LET gc=gc+nh+2: LET go=go+1
: POKE mc+8,go
1150 IF go<=2 THEN GO TO 960
1160 LET p0=gc: LET p1=mc+2: GO
SUB 2260: LET p0=g1: LET p1=mc:
GO SUB 2260
1170 IF go>9 THEN LET lb=lb+2: P
OKE mc+7,lb
1180 GO TO 970
1190 RETURN
1200 FOR a=0 TO nh-1
1210 POKE g1+a,s1: POKE gc+a,s1
1220 LET s1=s1+1
1230 IF s1>=nc THEN LET s1=0
1240 NEXT a
1250 LET p0=gc: LET p1=mc+2: GO
SUB 2260: LET p0=g1-nh: LET p1=m
c: GO SUB 2260: RANDOMIZE USR (m
c+11)
1260 RETURN
1270 REM
1280 REM Break code
1290 REM
1300 LET sp=T: LET m1=7: LET tt=
gs: LET gc=g1: LET go=1
1310 LET p0=gs: LET p1=mc+2: GO
SUB 2260
```



Vote, vote, vote for . . . well, who are you going to vote for? Yes, that all-important time has come for you to cast your votes for the best Speccy game published over the last six months in the *YS* Opportunity Knocks competition. You've typed in the listings, you've played the games and now it's your chance to tell us which one you think capped 'em all in the race for the ace place. What d'you mean, you haven't typed 'em all in? You skipped that one with the two cowboys and the one set in space, well two actually, oh and there was the one . . .

Well, for those of you who have made the effort, the six games are recapped on this page. Read about them, have another play and then fill in the voting coupon below. You'll notice that it's set out in a similar fashion to the *YS* Megagame Challenge and that's because we believe these games are as good as some that've made it to the shop shelves. No, not as good as *Elite* or *Fairlight*, fair enough, but remember there was a limit of 5K on the programs.

For those of you who haven't played all the games, you have a number of choices. 1) Turn the page . . . just joking! 2) Type all the games in and if you haven't kept all your copies, we can do you a nice little number on the Back Issues page. 3) You can buy all six games on one compilation tape from Digi'T'ape and all for £2.99. Now aren't we good to you! That way all the moaning minnies who 'never type games in from magazines 'cos we all know they're not much cop' can see just how wrong they are. And doubly wrong for the listings in *YS*.

PRIZE GIVING

And now for the moment you've been waiting for — the prizes.

FOR THE PROGRAMMERS

Each of the programmers has already received a large wad of fivers for his efforts but now there's more. A copy of the compilation tape will be sent to the top twenty software houses in the country so that they can judge the quality of programming talent among *YS* readers. It may very well be that one or more of these programming geniuses will be 'discovered' through the tape — but you'll know where you played the games first!

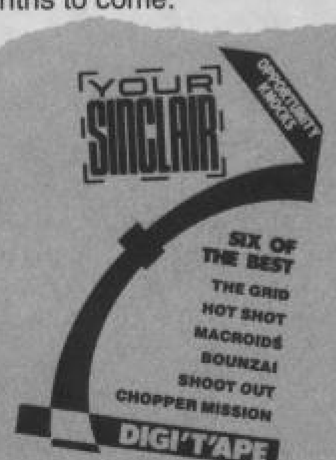
And for the outright winner, the one you vote for, there's the scope to expand the scope of his programming even further. How's that? you ask. Well, for the *YS* Programmer of the Year, there's a brand new Spectrum 128K on its way. Or there will be just as soon as the machine's launched in this country. You can be sure that the lucky winner will be one programmer who'll make full use of the machine and its extra memory. If there's going to be software for the new machine, then it's up to the best programmers to provide it. And our number one is one of the best!

FOR YOU

Yes, it's not only the programmers who are in with a chance of carrying off the goodies. Every vote cast goes straight into a lucky dip and the first one out again wins for its owner ten top software titles — the best ten from the issue in which the winners are announced. If you're into playing games, then a prize like that should keep you happy for a few months to come.

SIX APPEAL

I want to cast my vote in the *YS* Opportunity Knocks compo but I've been very lazy and I haven't typed all the games in. So, can you please send me . . . copies of the Digi'T'ape compilation tape. Now clip out this coupon and send it with a cheque or Postal Order for £2.99 per tape to Digi'T'ape, Freepost, Swansea SA5 5ZZ.



Name ....

Address. ....

....

....

....Postcode....................

OPPORTU KNOC



You've played the games, now it's time to cast yo Programmer of the Year. And just to jog your men run-down of the six finalists plus details of how to v could win. On with the clapmet

BOUNZAI

by Eric Verland

Battle it out against an opponent in this brilliant version of the classic Tanks *game. And there are seven stunning scenarios in this machine code shoot'em up.*

scenario
Tanks are tops in this game. Avoid the barricades and blast your opponent with your bullets.

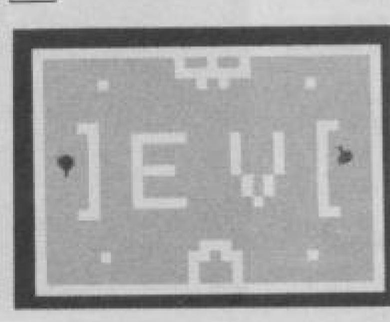
graphics
Blocky graphics but they form effective barriers to the enemy's bullets.

playability
Not only do you control your tank but you can even choose to manoeuvre the bullets round the screen.

originality
The game's been done before but you may not have played it if you didn't have an old Atari VCS machine.

addictiveness
A frustrating game that demands just one more go if you're to beat your opponent.

total



MACROIDS

by Stuart Jamieson

You'll be star struck by this amazing machine code version of Asteroids. *The rocks are there, the ships are there, the stars are there and so are you . . .*

scenario
Lost in space you must zap the wandering asteroids then zap 'em again when they divide and multiply. All this in the pursuit of points!

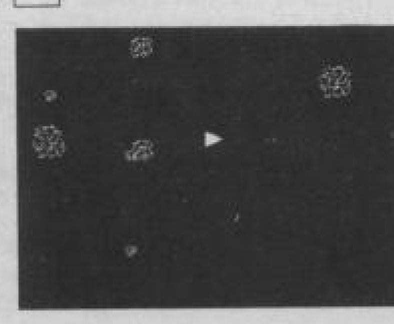
graphics
The night sky's a bit black and white but the asteroids are really rather elegant.

playability
Macroids has all the features of the arcade original including the brilliant handling.

originality
You've seen it before, played it before but it's never been this good on your Speccy before.

addictiveness
With so much space in the game you'll never reach the final frontier.

total



UNITY
CKS



**cast your votes for the YS
ur memories here's a quick
w to vote and the prizes you
ometer . . .**

SHOOT OUT

by Alan Trevartha

Go west young man — to the Wild West. Here only the quick on the draw survive long enough to send the other critter to Boot Hill.

scenario
It's High Noon and we're in cowboy country. You can tell from the cacti and the open top wagon.

graphics
A neat set of on-screen graphics right down to the gun in the cowboys' hands.

playability
You'll have to duck and weave your way behind the cacti if you're to stay out of the cemetery.

originality
Another arcade game faithfully converted to the Speccy but it needs two players to shoot it out.

addictiveness
How long you play depends on how much of a kick you get out of shooting people. We reckon the game's got a kick like a mule.

total



THE GRID

by Conor O'Neill

The survival of the human race is in your hands. Can you avoid the trackers and collect enough pellets to see us into the 22nd century?

scenario
The game takes its name from the grid where you collect the pellets. Just make sure you watch out for the missiles though.

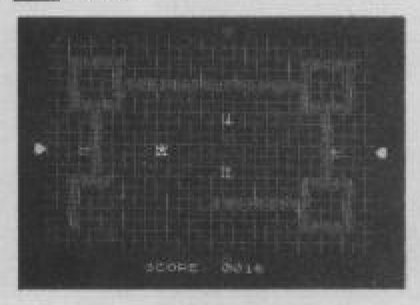
graphics
The graphics aren't really the selling point of the game but they're functional nevertheless.

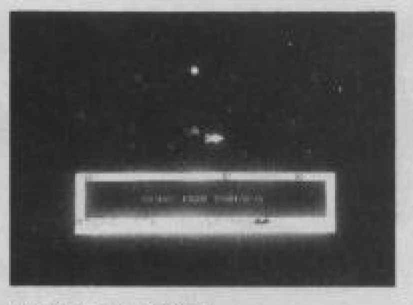
playability
Simple controls means this game's easy to pick up and play but it needs a lot of ingenuity to master.

originality
Here the game really scores. You won't have seen this game in the arcades but it's good enough to have got there.

addictiveness
This one has all the makings of a great game. It's clever, it's complex and it's completely compulsive.

total





HOT SHOT

by M Wallis

A Centipede style game that makes up for what it lacks in originality by a whole host of special features.

scenario
We're back with Sammy the Snake doing the old swallowing trick — well, all except his tail that is.

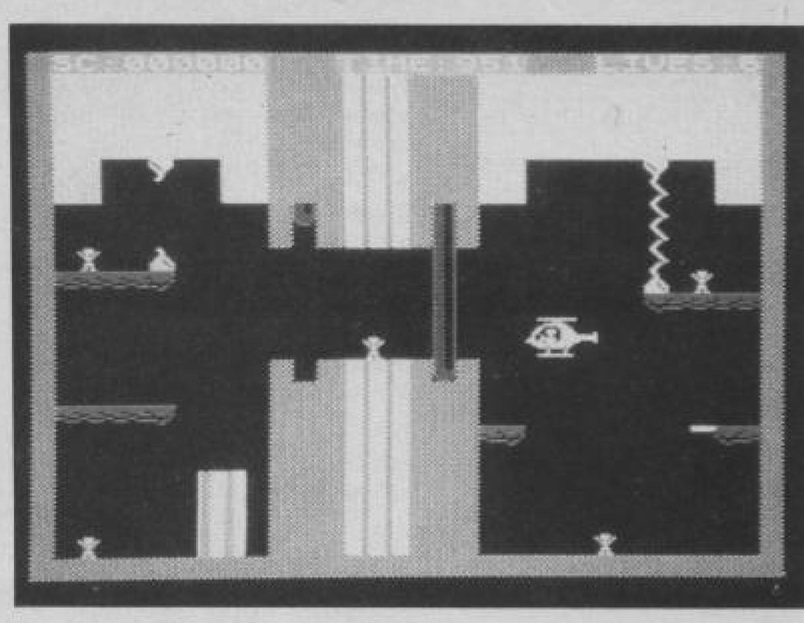
graphics
A neat screen that's full of fast action packed graphics.

playability
An easy to play game that's helped along by Kempston compatibility so you can use your joysticks and it even includes automatic fire.

originality
Okay, so it's a low scorer here but just look at how well it's been programmed.

addictiveness
We all know just how long you can spend on the games that seem simple at first. And with the extra lives option you could be at it all night.

total



CHOPPER MISSION

by M Rai

Fly your chopper through six screens of frantic airborne action in a bid to rescue the hostages snatched by the enemy. And don't expect the enemy to sit calmly back and watch you.

scenario
Take to the air à la Airwolf and manoeuvre around the complex screens on your mission of mercy.

graphics
You'll be hard pushed to find a better animated chopper even in some of the similar commercial games.

playability
It's easy to handle your machine but oh, so frustrating trying to master it.

originality
A couple of games spring to mind that may have proved the inspiration for Chopper Mission but really it's on its own.

addictiveness
This game's chop-a-bloc full of fun and should keep you firing and flying for ages.

total



A full 80K of extra memory for our lucky winner to fill.

VOTE WINNERS

To your polling stations. Here's how you go about voting for the top Speccy game of the last six months. First, play the games — always a good idea that! Next score them in all the categories listed using the following guidelines:

5 points Mega
4 points Good
3 points Okay
2 points Poor
1 point Naff
0 point Yuk!

Total up the points you've awarded to each game and then tell us the winner. Then clip out the coupon (or use a photocopy) and stick it to the back of a postcard or sealed envelope and send it to Opportunity Knocks, *Your Sinclair*, 14 Rathbone Place, London W1P 1DE.

My vote for the best game in the Opportunity Knocks Compo goes to

....

Now enter my vote into the prize draw for the ten free pieces of software.

Name ....

Address..

....

....*Postcode* ....

```
1320 LET p0=g1: LET p1=mc: GO SU
B 2260
1330 GO SUB 660: REM Set up boar
d
1340 GO SUB 1930: REM Set comput
ers code
1350 GO SUB 1470: REM New guess
1360 RANDOMIZE USR (mc+11): LET
nb=PEEK (mc+9): LET nw=PEEK (mc+
10)
1370 GO SUB 1790: REM Display sc
ore
1380 LET go=go+1
1390 IF go>17 THEN PRINT #1;"You
 are awful": PAUSE 50: GO TO 141
0
1400 IF nb<>nh THEN GO TO 1350
1410 LET score=go-1: LET a1=20-g
o: LET go=19: LET gc=gs
1420 GO SUB 2090
1430 RETURN
1440 REM
1450 REM New guess
1460 REM
1470 FOR a=0 TO nh-1: POKE g1+a,
8: NEXT a
1480 LET b=att+3: LET pos=1
1490 LET x=b+(20-go)*32+pos*2: P
OKE x,PEEK x+128
1500 GO SUB 2230: REM Get a$
1510 IF a$=" " AND sp=T THEN LET
 colour=8: PRINT AT 20-go,3+pos*
2; INK 0;" ": GO TO 1680
1520 LET colour=CODE a$
1530 IF colour>13 THEN GO TO 161
0
1540 POKE x,PEEK x-128
1550 IF colour=13 THEN GO TO 171
0
1560 IF colour=9 THEN GO TO 1690
1570 IF colour<>8 THEN GO TO 149
0
1580 LET pos=pos-2
1590 IF pos<1 THEN LET pos=pos+nh
1600 GO TO 1690
1610 LET colour=colour-48
1620 IF colour<0 OR colour>m1 TH
EN GO TO 1500
1630 IF colscn=T THEN GO TO 1660
1640 PRINT AT 20-go,3+pos*2; INK
 0;colour
1650 GO TO 1680
1660 IF colour=4 THEN PRINT AT 2
0-go,3+pos*2; INK 7;" ": GO TO 1
680
1670 PRINT AT 20-go,3+pos*2; INK
 colour;" "
1680 POKE g1+pos-1,colour
1690 LET pos=pos+1: IF pos>nh TH
EN LET pos=1
1700 GO TO 1490
1710 RETURN
1720 GO SUB 1470: GO TO 1730
1725 GO SUB 1480
1730 LET x=T: FOR a=0 TO nh-1: I
F PEEK (g1+a)>=nc THEN LET x=F
1740 NEXT a: IF x=F THEN GO TO 1
725
1750 RETURN
1760 REM
1770 REM Display score
1780 REM
1790 IF nb=0 THEN GO TO 1840
1800 INK 0
1810 FOR a=1 TO nb
1820 PRINT AT 20-go,sh+a;" "
1830 NEXT a
1840 IF nw=0 THEN GO TO 1890
1850 INK 7
1860 FOR a=1 TO nw
1870 PRINT AT 20-go,sh+nb+a;" "
1880 NEXT a
1890 RETURN
1900 REM
1910 REM Original guess
1920 REM
1930 RANDOMIZE
1940 FOR a=0 TO nh-1
1950 POKE gs+a,INT (RND*nc)
1960 NEXT a
1970 RETURN
1980 REM
1990 REM Print guess
2000 REM
2010 FOR a=0 TO nh-1
2020 LET row=20-go: LET col=5+a*
2: LET val=PEEK (gc+a)
2030 IF val=8 THEN PRINT AT row,
col; INK 0;" ": GO TO 2070
2040 IF colscn=F THEN PRINT AT r
ow,col; INK 0;val: GO TO 2070
2050 IF val=4 THEN PRINT AT row,
col; INK 7;" ": GO TO 2070
2060 PRINT AT row,col; INK val;"
"
2070 NEXT a
2080 RETURN
2090 RANDOMIZE USR 3438
2100 GO SUB 2010: PRINT AT 21,5;
"That took ";score;" moves": PRI
NT #1;"Hit any key": PAUSE 0
2110 RANDOMIZE USR 3438: PRINT A
T 21,5;TAB 25;""
2120 RETURN
2130 REM
2140 REM Get value<=nh AND >=0
2150 REM
2160 GO SUB 2230
2170 LET val=CODE a$-48
2180 IF val<0 OR val>nh THEN GO
TO 2160
2190 RETURN
2200 REM
2210 REM Get a character in a$
2220 REM
2230 LET a$=INKEY$: IF a$<>"" TH
EN GO TO 2230
2240 LET a$=INKEY$: IF a$="" THE
N GO TO 2240
2250 RETURN
2260 LET hi=INT (p0/256): LET lo
=p0-256*hi
2270 POKE p1,lo: POKE p1+1,hi
2280 RETURN
2290 REM
2300 REM U.D.G.'s
2310 REM
2320 FOR a=1 TO 5: READ a$
2330 FOR b=0 TO 7: READ val
2340 POKE USR a$+b,val
2350 NEXT b: NEXT a
2360 RETURN
2370 DATA "a",60,126,255,255,255
,255,126,60,"b",60,66,129,129,12
9,129,66,60,"c",0,60,126,126,126
,126,60,0,"d",0,0,0,24,24,0,0,0,
"e",0,0,24,60,60,24,0,0
```

CHERRY RUN

by Conor O'Neil

Welcome to the CherryDome. But don't think you're going to have a chance to relax — there are far too many cherries to collect for that. You play Henry the Cherry Collector — and don't ask us why he's called Henry, ask his mum. Our 'Enery has to eat his way through the four rooms collecting cherries and taking them back to base. But he's chased by four cherry bugs who can only follow paths that he's created. Fortunately, the bugs aren't invincible — Henry can do the dirty on them by undermining the rocks just so long as he gets out of the way in time.

If you're not yet convinced of just how good the game is, let Conor himself persuade you. "This is my 99% megacool hypergame. Software houses watch out — the dawn of a new force in programming genius arrives with my launch upon the scene." Can you let a claim like that go unchallenged?

The keys you'll need are Q for up, A down, O left and P right. Oh, and if Conor's game has you beat you may find these POKEs useful — 49094,0 gives you infinite lives and 49174,n lets you choose any number of lives between 1 and 9.

This program is available on Digi'T'ape

The Basic Loader

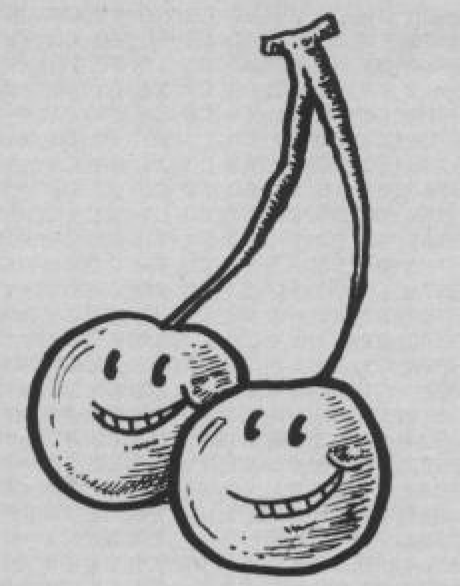
Type in the loader and save it at the beginning of your master tape with SAVE "CHERPROG" LINE 1.

```
   1 LOAD ""CODE
   4 PAPER 0: INK 4: BORDER 0: C
LS
   5 POKE 50444,0: POKE 50445,0
  10 PRINT AT 3,8;"CONTROLS : Q=
UP"
  11 PRINT AT 4,19;"A=DOWN"
  12 PRINT AT 5,19;"O=LEFT"
  13 PRINT AT 6,19;"P=RIGHT"
  14 PRINT AT 7,19;"BEST SPEED=4
8"
  15 INPUT "ENTER SPEED 1-255 ";
A
  16 IF A>=1 AND A<=255 THEN GO
TO 18
  17 GO TO 15
  18 POKE 50715,A
  20 FOR F=1 TO 300: NEXT F
  21 RANDOMIZE USR 50680
  22 CLS
  23 LET HSC=(PEEK 50444+256*PEE
K 50445)
  24 IF HSC<(PEEK 45989+256*PEEK
 45990) THEN POKE 50444,(PEEK 45
989): POKE 50445,(PEEK 45990)
  26 PRINT AT 4,4;"SCORE= ";(PEE
K 45989+256*PEEK 45990);" HISCOR
E= ";(PEEK 50444+256*PEEK 50445)
  27 FOR F=0 TO 300: NEXT F
  28 GO TO 15
  29 SAVE "CHERPROG" LINE 1
  30 SAVE "CHERBYTE"CODE 45056,5
830
  31 GO TO 29
```

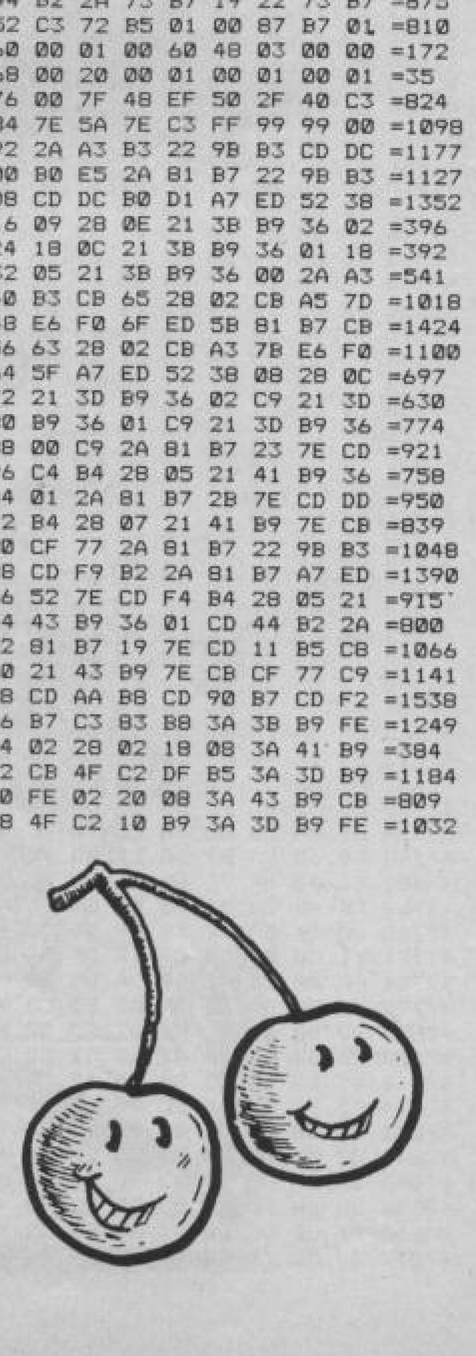
The Hex Data

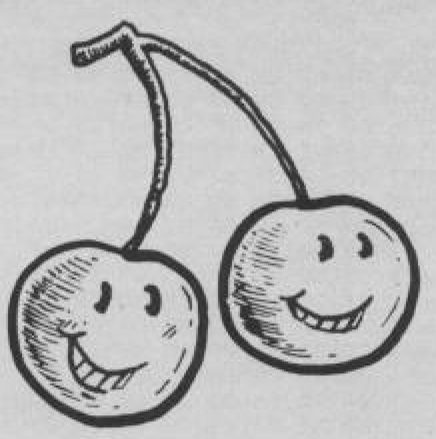
Ha, bet you thought we'd forgotten something. Yes, you will need a hex loader to enter the code but if you haven't got one saved to tape you can use the one from Codebusters in this Program Power. Now get pickin'.

```
45056 21 88 B3 22 9F B3 CD 53 =1008
45064 B0 2A 9B B3 23 22 9B B3 =955
45072 22 9D B3 21 93 B3 22 9F =922
45080 B3 CD 53 B0 2A 9B B3 CD =1224
45088 72 B0 36 02 C9 ED 5B 73 =990
45096 B7 CB 63 28 02 CB A3 7B =1016
45104 E6 F0 5F C9 CD 53 B0 2A =1272
45112 9B B3 CD 72 B0 36 00 2A =925
45120 9B B3 23 22 9B B3 22 9D =928
45128 B3 21 93 B3 22 9F B3 CD =1115
```



```
45136 53 B0 C9 21 A1 B3 36 00 =887
45144 06 08 2A 9F B3 ED 5B A1 =883
45152 B3 19 7E 2A 9D B3 77 24 =863
45160 22 9D B3 21 A1 B3 34 10 =811
45168 E9 C9 7C E6 18 CB 2F CB =1265
45176 2F CB 2F C6 58 67 C9 2A =929
45184 A3 B3 22 9B B3 22 9D B3 =1080
45192 24 24 23 7E FE 5A CA A2 =941
45200 BF 00 FE 3C CA BA B0 FE =1323
45208 7E 00 CA 04 C6 CD DC B0 =1131
45216 E5 D1 21 1F 40 A7 ED 52 =1052
45224 00 CA 04 C6 CD 00 B0 2A =827
45232 A3 B3 23 22 A3 B3 00 C3 =948
45240 04 C6 3A A7 B3 FE 01 CA =1063
45248 04 C6 3E 01 32 A7 B3 CD =866
45256 00 B0 2A A3 B3 23 22 A3 =792
45264 B3 21 D1 B3 35 00 00 00 =653
45272 00 C3 04 C6 3A 9B B3 E6 =1019
45280 10 FE 10 1E 00 20 02 1E =380
45288 10 3A 9B B3 E6 0F 83 26 =822
45296 00 6F 11 00 40 19 C9 2A =460
45304 A5 B3 11 0A 00 A7 ED 52 =857
45312 30 0A 01 16 0E CD D9 0D =530
45320 CD 52 B1 C9 2A A5 B3 11 =1068
45328 64 00 A7 ED 52 30 0A 01 =645
45336 17 0E CD D9 0D CD 52 B1 =936
45344 C9 2A A5 B3 11 E8 03 A7 =1006
45352 ED 52 30 0A 01 18 0E CD =621
45360 D9 0D CD 52 B1 C9 2A A5 =1102
45368 B3 11 0F 27 A7 ED 52 30 =784
45376 0A 01 19 0E CD D9 0D CD =690
45384 52 B1 C9 21 00 00 C3 85 =821
45392 B1 C9 3E 10 D7 3E 07 D7 =955
45400 ED 4B A5 B3 CD 1B 1A C9 =1115
45408 21 88 B3 22 9F B3 CD 53 =1008
45416 B0 2A 9B B3 2B 22 9B B3 =963
45424 22 9D B3 21 C9 B3 22 9F =976
45432 B3 CD 53 B0 2A 9B B3 CD =1224
45440 72 B0 36 02 C9 22 A5 B3 =925
45448 CD 89 C5 C9 9D B3 21 88 =1245
45456 B3 22 9F B3 CD 53 B0 2A =1057
45464 9B B3 CD 72 B0 36 00 2A =925
45472 9B B3 2B 22 9B B3 22 9D =936
45480 B3 21 C9 B3 22 9F B3 CD =1169
45488 53 B0 C9 2A A3 B3 22 9B =1033
45496 B3 22 9D B3 24 24 2B 7E =790
45504 FE 5A CA A2 BF 00 FE 3C =1213
45512 CA EB B1 FE 7E CA 04 C6 =1398
45520 00 CD DC B0 11 00 40 ED =919
45528 52 CA 04 C6 00 CD 60 B1 =964
45536 2A A3 B3 2B 22 A3 B3 C3 =998
45544 04 C6 00 3A A7 B3 FE 01 =861
45552 CA 04 C6 00 3E 01 32 A7 =684
45560 B3 CD 60 B1 2A A3 B3 2B =1084
45568 22 A3 B3 21 D1 B3 35 00 =850
45576 00 00 00 C3 04 C6 CD 44 =670
45584 B2 2A 9B B3 19 22 9B B3 =947
45592 22 9D B3 21 B1 B3 22 9F =952
45600 B3 CD 53 B0 2A 9B B3 CD =1224
45608 72 B0 36 02 21 88 B3 22 =728
45616 9F B3 2A A3 B3 22 9D B3 =1092
45624 CD 53 B0 2A A3 B3 CD 72 =1167
45632 B0 36 00 C9 2A 9B B3 7C =931
45640 11 20 00 FE 48 28 05 FE =674
45648 40 28 01 C9 7D D6 E0 D8 =1085
45656 11 20 07 C9 2A A3 B3 22 =675
45664 9B B3 22 9D B3 CD 44 B2 =1155
45672 2A 9B B3 19 24 24 7E FE =853
45680 5A CA A2 BF 00 FE 3C CA =1161
45688 9F B2 FE 7E CA 04 C6 00 =1121
45696 21 E0 50 ED 5B 9B B3 A7 =1166
45704 ED 52 CA 04 C6 DA 04 C6 =1143
45712 00 00 CD 0E B2 2A 9B B3 =773
45720 22 A3 B3 C3 04 C6 00 3A =831
45728 A7 B3 FE 01 CA 04 C6 00 =1005
45736 3E 01 32 A7 B3 CD 0E B2 =856
45744 2A 9B B3 22 A3 B3 21 D1 =994
45752 B3 35 00 00 00 00 C3 04 =431
45760 C6 CD F9 B2 2A 9B B3 A7 =1373
45768 ED 52 22 9B B3 22 9D B3 =1057
45776 21 A9 B3 22 9F B3 CD 53 =1041
45784 B0 2A 9B B3 CD 72 B0 36 =1101
45792 02 21 88 B3 22 9F B3 2A =764
45800 A3 B3 22 9D B3 CD 53 B0 =1176
45808 2A A3 B3 CD 72 B0 36 00 =933
45816 C9 2A 9B B3 7C 11 20 00 =750
45824 FE 48 28 05 FE 50 28 01 =746
45832 C9 3E 1F 95 D8 11 20 07 =715
45840 C9 2A A3 B3 22 9B B3 22 =987
45848 9D B3 CD F9 B2 2A 9B B3 =1344
45856 A7 ED 52 24 24 7E FE 5A =1028
45864 CA A2 BF 00 FE 3C CA 56 =1157
45872 B3 FE 7E CA 04 C6 00 21 =996
45880 3F 40 ED 5B 9B B3 A7 ED =1193
45888 52 CA 04 C6 D2 04 C6 00 =898
45896 00 CD C1 B2 2A 9B B3 22 =986
45904 A3 B3 C3 04 C6 00 3A A7 =964
45912 B3 FE 01 CA 04 C6 00 3E =900
45920 01 32 A7 B3 CD C1 B2 2A =1015
45928 9B B3 22 A3 B3 21 D1 B3 =1131
45936 35 00 00 00 00 C3 04 C6 =450
45944 03 01 01 01 01 00 00 00 =7
45952 C0 80 E0 80 80 80 80 C0 =1248
45960 00 00 00 00 00 00 00 00 =0
45968 00 00 00 3C 18 3C 5A 99 =387
45976 24 42 63 00 51 B3 58 20 =581
45984 C0 08 00 6F 48 00 00 00 =383
45992 00 BD 99 99 FF 24 24 24 =858
46000 24 24 24 24 24 FF 99 99 =741
46008 BD C0 80 80 80 80 40 20 =989
46016 60 03 01 07 01 01 02 04 =115
46024 0C 3C 18 3C 5A 99 24 42 =501
46032 C6 0C 00 00 00 00 00 00 =210
46040 00 00 2A A3 B3 22 9B B3 =752
46048 CD DC B0 E5 2A 73 B7 22 =1204
46056 9B B3 CD DC B0 D1 A7 ED =1548
46064 52 38 09 28 0E 21 6F B7 =528
46072 36 02 18 0C 21 6F B7 36 =473
46080 01 18 05 21 6F B7 36 00 =411
46088 2A A3 B3 CB 65 28 02 CB =933
46096 A5 7D E6 F0 6F CD 25 B0 =1289
46104 00 A7 ED 52 38 08 28 0C =602
46112 21 71 B7 36 02 C9 21 71 =732
46120 B7 36 01 C9 21 71 B7 36 =822
46128 00 C9 2A 73 B7 23 7E CD =907
46136 C4 B4 28 05 21 75 B7 36 =808
46144 01 2A 73 B7 2B 7E CD DD =936
46152 B4 28 07 21 75 B7 7E CB =889
46160 CF 77 2A 73 B7 22 9B B3 =1034
46168 CD F9 B2 2A 73 B7 A7 ED =1376
46176 52 7E CD F4 B4 28 05 21 =915
46184 77 B7 36 01 CD 44 B2 2A =850
46192 73 B7 19 7E CD 11 B5 CB =1052
46200 3A 77 B7 CB CF 32 77 B7 =1122
46208 C9 CD 55 B5 CD DA B3 CD =1479
46216 32 B4 C3 2E B5 3A 6F B7 =1004
46224 FE 01 28 02 18 08 3A 75 =504
46232 B7 CB 47 C2 75 B6 3A 71 =1121
46240 B7 FE 01 20 08 3A 77 B7 =838
46248 CB 47 C2 D6 B6 3A 71 B7 =1218
46256 FE 02 20 08 3A 77 B7 CB =859
46264 4F C2 40 B7 3A 75 B7 CB =1081
46272 4F C3 30 C0 FE 5A C8 FE =1312
46280 18 C8 FE 7E C8 2B 22 9B =1036
46288 B3 CD DC B0 E5 D1 21 1F =1282
46296 40 A7 ED 52 C9 FE 5A C8 =1295
46304 FE 18 C8 FE 7E C8 23 22 =1127
46312 9B B3 CD DC B0 11 00 40 =1016
46320 A7 ED 52 C9 FE 5A C8 FE =1485
46328 18 C8 FE 7E C8 2A 9B B3 =1180
46336 CB 65 28 02 CB A5 7D E6 =1069
46344 F0 6F 11 20 40 A7 ED 52 =950
46352 C9 FE 5A C8 FE 18 C8 FE =1477
46360 7E C8 2A 9B B3 CB 65 28 =1046
46368 02 CB A5 7D E6 F0 6F 11 =1093
46376 E0 50 A7 ED 52 C9 3A 71 =1162
46384 B7 FE 00 C2 8D B4 2A 73 =1109
46392 B7 ED 5B A3 B3 A7 ED 52 =1339
46400 ED 5B 79 B7 A7 ED 52 D2 =1328
46408 8D B4 3A 75 B7 CB 4F CA =1163
46416 8D B4 C3 BD B5 21 75 B7 =1219
46424 36 00 21 77 B7 36 00 21 =476
46432 6F B7 36 00 21 71 B7 36 =731
46440 00 C9 3A 6B B7 FE 01 CA =1006
46448 B1 B4 3A 7B B7 FE 01 CA =1130
46456 40 B8 3A 7D B7 FE 01 CA =1071
46464 FA B9 3A 7F B7 FE 01 CA =1260
46472 99 BB C3 07 C6 21 A1 B3 =1113
46480 36 00 06 08 2A 6D B7 ED =639
46488 5B A1 B3 19 7E 2A 9D B3 =960
46496 36 00 2B 77 2A 9D B3 24 =630
46504 22 9D B3 21 A1 B3 34 10 =811
46512 E3 2A 9B B3 CD 72 B0 36 =1152
46520 04 2B 36 05 C9 2A 73 B7 =647
46528 22 9B B3 22 9D B3 2B ED =1018
46536 5B A3 B3 A7 ED 52 00 CA =1121
46544 A2 BF CD 8D B5 2A 73 B7 =1220
46552 2B 22 73 B7 C3 72 B5 2A =907
46560 B1 B7 22 9B B3 22 9D B3 =1050
46568 2B ED 5B A3 B3 A7 ED 52 =1199
46576 00 CA A2 BF CD 8D B5 2A =1124
46584 81 B7 2B 22 81 B7 C3 7A =1018
46592 B5 2A 83 B7 22 9B B3 22 =939
46600 9D B3 2B ED 5B A3 B3 A7 =1216
46608 ED 52 00 CA A2 BF CD 8D =1220
46616 B5 2A 83 B7 2B 22 83 B7 =928
46624 C3 82 B5 2A 85 B7 22 9B =1053
46632 B3 22 9D B3 2B ED 5B A3 =1083
46640 B3 A7 ED 52 00 CA A2 BF =1220
46648 CD 8D B5 2A 85 B7 2B 22 =962
46656 85 B7 C3 8A B5 21 A1 B3 =1203
46664 36 00 06 08 2A 6D B7 ED =639
46672 5B A1 B3 19 7E 2A 9D B3 =960
46680 36 00 23 77 2A 9D B3 24 =622
46688 22 9D B3 21 A1 B3 34 10 =811
46696 E3 2A 9B B3 CD 72 B0 36 =1152
46704 04 23 36 05 C9 2A 73 B7 =639
46712 22 9B B3 22 9D B3 23 ED =1010
46720 5B A3 B3 A7 ED 52 00 CA =1121
46728 A2 BF CD 45 B6 2A 73 B7 =1149
46736 23 22 73 B7 C3 72 B5 21 =890
46744 A1 B3 36 00 06 08 ED 5B =736
46752 A1 B3 2A 6D B7 19 7E F5 =1070
46760 2A 9D B3 36 00 CD F9 B2 =1064
46768 2A 9D B3 A7 ED 52 F1 77 =1224
46776 21 A1 B3 34 2A 9D B3 24 =839
46784 22 9D B3 10 D9 2A 9B B3 =979
46792 CD 72 B0 36 04 11 20 00 =602
46800 A7 ED 52 36 05 C9 2A 73 =903
46808 B7 22 9B B3 22 9D B3 CD =1126
46816 F9 B2 2A 9B B3 A7 ED 52 =1289
46824 ED 5B A3 B3 A7 ED 52 00 =1156
46832 CA A2 BF CD 97 B6 CD F9 =1547
46840 B2 2A 73 B7 A7 ED 52 22 =1038
46848 73 B7 C3 72 B5 21 A1 B3 =1161
46856 36 00 06 08 ED 5B A1 B3 =736
46864 2A 6D B7 19 7E F5 CD 44 =1003
46872 B2 2A 9D B3 19 F1 77 2A =983
46880 9D B3 36 00 21 A1 B3 34 =815
46888 2A 9D B3 24 22 9D B3 10 =800
46896 DB 2A 9B B3 CD 72 B0 36 =1144
46904 04 11 20 00 19 36 05 C9 =338
46912 2A 73 B7 22 9B B3 22 9D =899
46920 B3 CD 44 B2 2A 9B B3 19 =1031
46928 ED 5B A3 B3 A7 ED 52 00 =1156
46936 CA A2 BF CD 05 B7 CD 44 =1221
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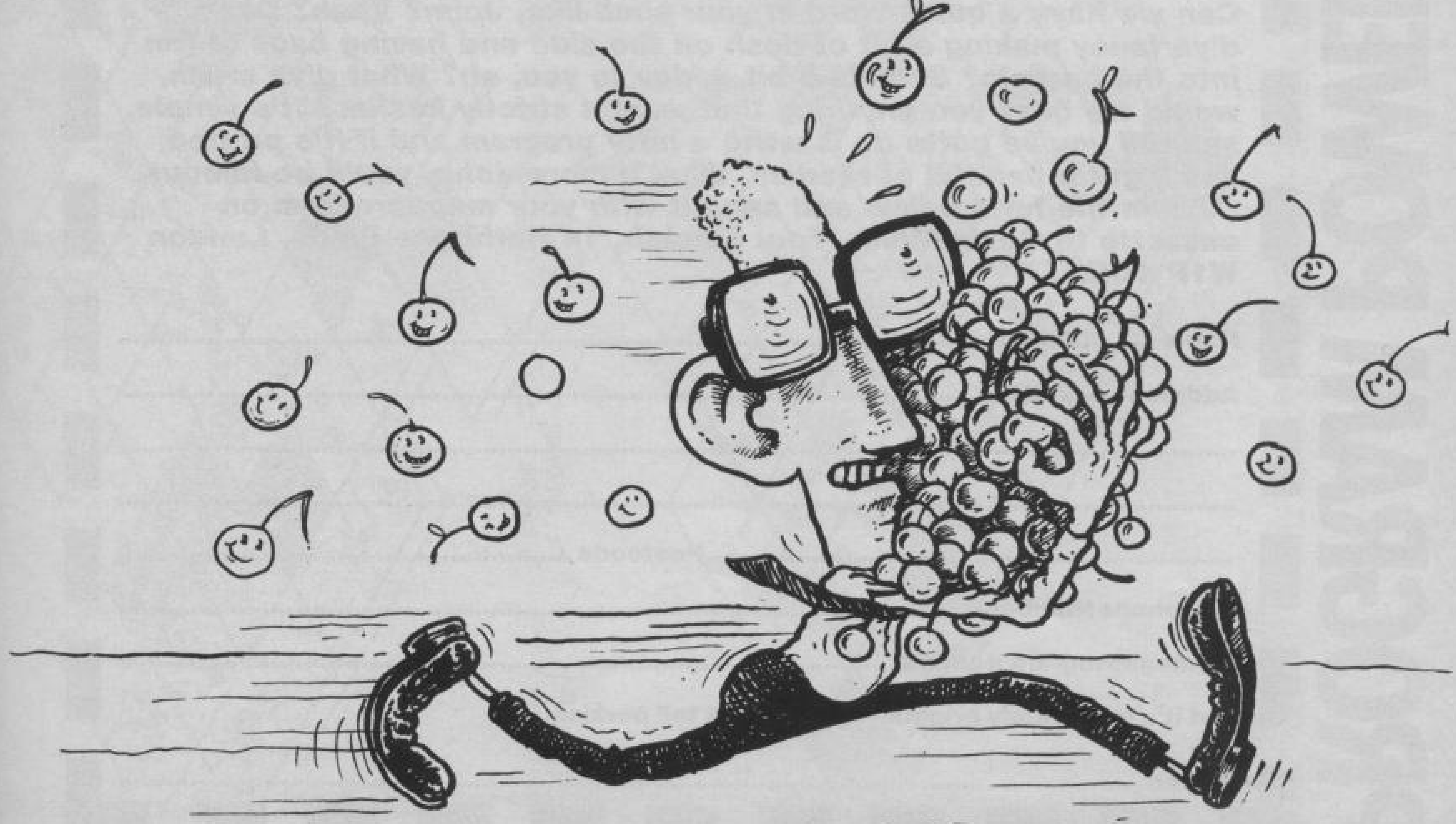


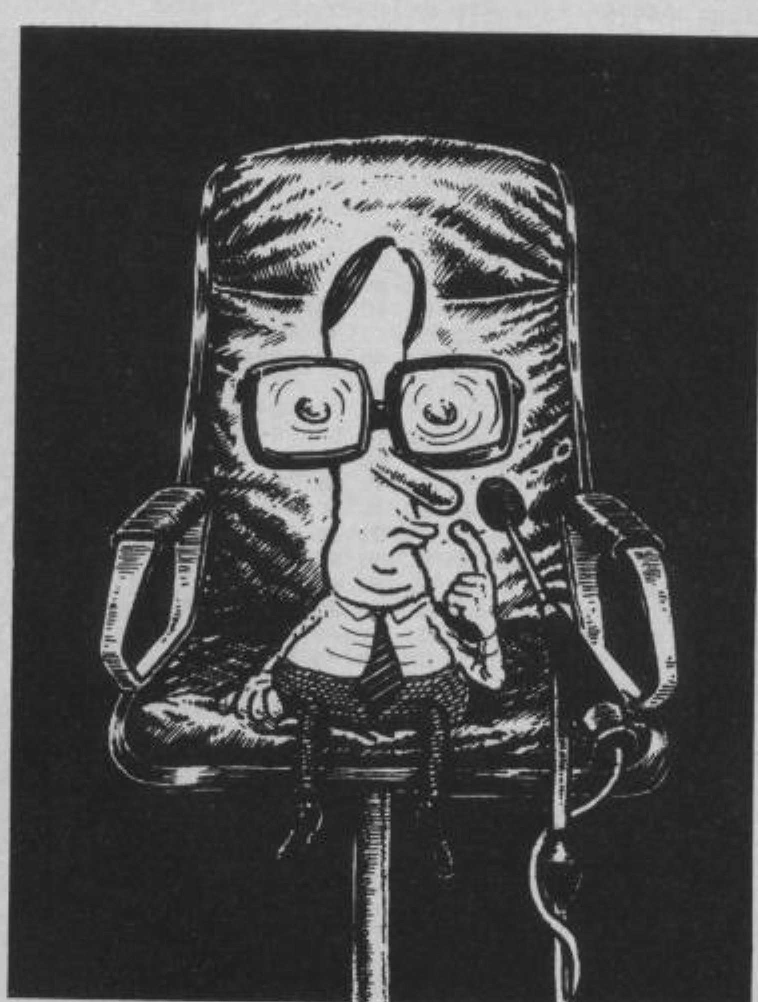
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50592 CD D9 0D ED 4B 0C C5 CD =1161
50600 1B 1A C9 01 02 0E CD D9 =693
50608 0D ED 4B 16 C0 CD 1B 1A =797
50616 C9 01 0D 0E CD D9 0D 11 =681
50624 C9 C5 01 04 00 CD 3C 20 =700
50632 C9 30 30 30 30 CD 22 BD =821
50640 CD 41 C6 CD CA BE CD 74 =1386
50648 C5 CD 4A C5 CD 89 C5 CD =1417
50656 E8 BF CD AB C5 CD B6 C6 =1581
50664 CD 81 BD CD 99 BD CD B1 =1452
50672 BD CD C9 BD CD E1 BD C9 =1604
50680 CD AD C6 CD 22 BD C3 36 =1253
50688 C6 C3 7E BF C3 95 C6 C3 =1447
50696 D4 C0 CD 18 BE CD 27 C6 =1265
50704 3A 16 C0 FE 00 20 E4 C9 =987
50712 00 00 06 3C C5 06 FF 05 =529
50720 C2 1F C6 C1 10 F6 C9 CD =1284
50728 1A C6 CD F7 B0 C9 00 00 =1053
50736 21 16 C0 36 03 C9 3A A7 =730
50744 B3 FE 01 C2 01 C6 C3 00 =1022
50752 BD CD 3A BD 21 C0 5A 22 =990
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50800 44 B2 2A 9B B3 19 22 9B =836
50808 B3 C1 10 E9 C9 21 0F 40 =934
50816 22 9B B3 CD 5D C6 C9 06 =1071
50824 20 2A 9B B3 36 04 23 22 =535
50832 9B B3 10 F5 C9 3A AB C6 =1223
50840 FE 00 28 07 21 AB C6 35 =756
50848 C3 07 C6 21 AB C6 36 02 =858
50856 C3 6A B5 02 00 21 AB C6 =886
50864 36 02 CD D1 BF C9 CD 9D =1224
50872 C5 CD F7 B0 C9 00 00 00 =1026
50880 00 00 00 00 00 00 00 00 =0STOP
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PROGRAM POWER

Can we have a quick word in your shell-like, John? Yeah? Okay, d'ya fancy making a bit of dosh on the side and having bags of fun into the bargain? Sounds a bit dodgy to you, eh? What d'ya mean, would we offer you anything that wasn't strictly kosher? It's simple, see. All you've gotta do is write a nifty program and if it's printed you'll get a handful of readies. What's more John, you'll be famous.

Fill in the form below and send it with your megaprogram on cassette to Gavin Monk, Your Sinclair, 14 Rathbone Place, London W1P 1DE.

Name ....

Address ....

....

....

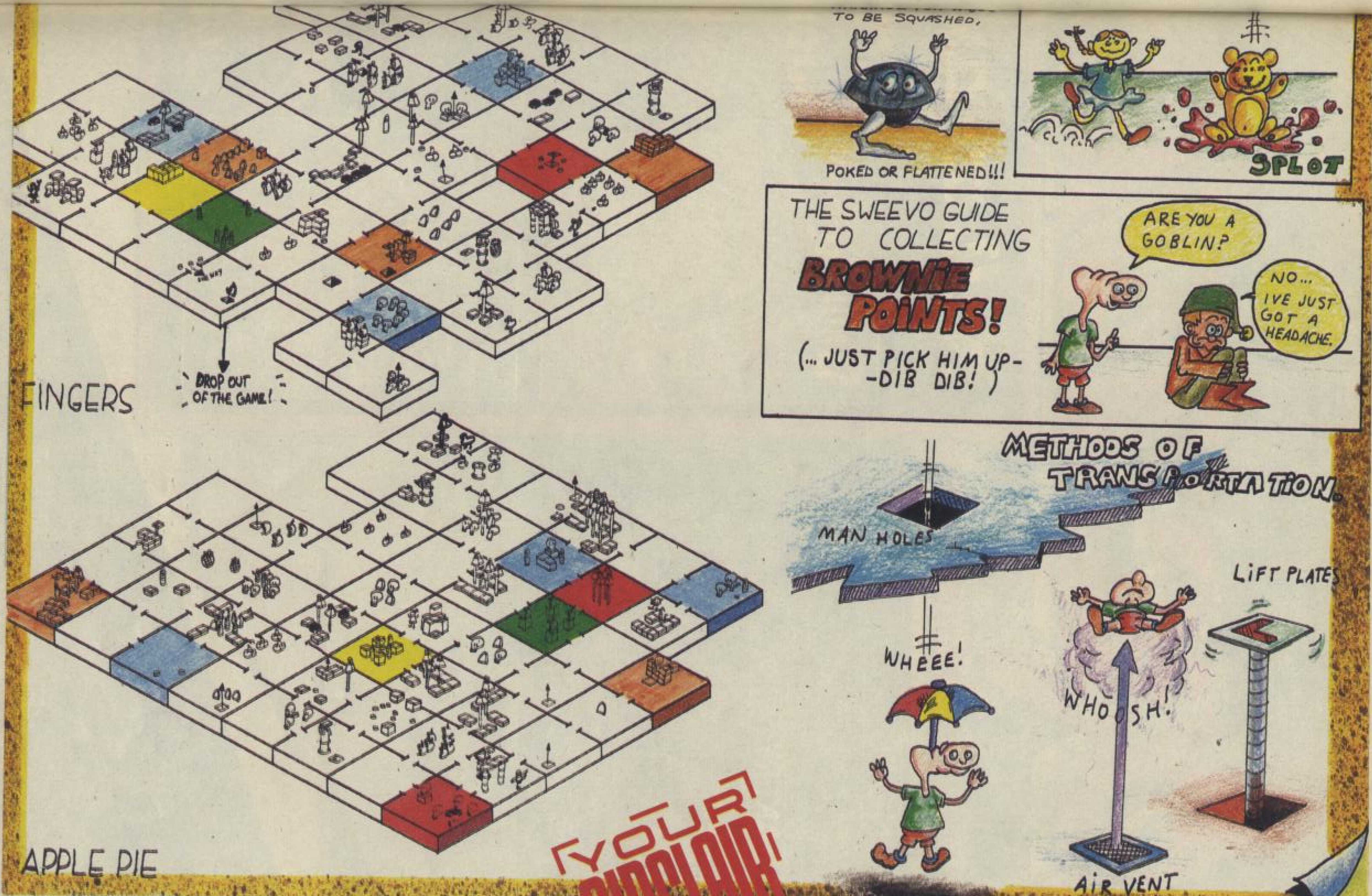
.... **Postcode** ....

Telephone Number ....

My megaprogram's called ....

and it's completely original — and I don't tell porkies.

Signed ....



YOUR SINCLAIR

RE64 · SPECTRUM 48K

-action

ytes of fun

om

onami



CADE
HOT
HOTS

PING PONG

You can almost feel the tension of the big match breaking through the screen...the expectant crowd is almost on top of you! You return the service with a top spin backhand, then a forward back-spin, the ball bounces high from your opponent's looping, defensive lob...SMASH!...a great shot opens the score...but this is only your first point! Play head to head or against the computer in this, Konami's first and best table-tennis simulation.

HYPER SPORTS

Enter the stadium of Konami's No. 1 arcade smash-hit sports simulation.From the finesse and skill of Archery and Skeet Shooting to the critical timing and brute force of weight lifting – six events to test you to your limit. Hyper Sports – continuing the challenge where 'Track and Field' left off.

AMSTRAD **8·95** EACH

SPECTRUM 48K **7·95** EACH

COMMODORE 64 **8·95** EACH

Imagine Software is available from selected branches of:

Boots, WHSMITH, John Menzies, WOOLWORTH, LASKYS, Rumbelows, Greens, Spectrum Shops and all good dealers.



Illustration: David Elliott

SKYFOX

Skyfox, the ultimate war machine has arrived from the States. Ariolasoft has already started shipments for your Speccy. Now *Phil South* takes her up for a spin and goes crazy like a fox . . .

Clint Eastwood? Who he? No, this is the fight simulator. Yes, I said fight simulator. No airports, no stoopid maps, just wall to wall action, flyboys. You're in the hotseat of a hi-tech airborne killing machine of the first order, protecting your base from legions of tanks and flocks of deadly iron birds similar to your own. Yep, they keep on coming. But you're ready for them. You're the best there is. Well, in truth, soldier, you're the only one there is. So get out there, use your state of the art guidance systems and give 'em hell! Are you ready? Are you sharp? You bet! Do you want to give up now? The hell you will!

Does this sound like your kind of game? You bet it does. After keeping American kids blasting, and shooting to the tip top of the US charts like one of its own guided missiles, Skyfox is out now for the Speccy. And does it zoom blast pow zap the pants off every flight simulator/shoot 'em up you ever clapped eyes on — well yes it does! Skyfox is an arcade/strategy based on a cockpit view simulation of a powerful modern fighter aircraft. Now, I'm not much of a one for flight simulators; when most of my pals were building model aircraft, I was reading Superman comics, so planes don't really turn me on. But this is not your average flight sim. You've got short and long range scanners, guided and heat seeking missiles (they don't like it up 'em saah!) to guide with the joystick or fire at their vapourtrails respectively, an on-board, heads-up display battle computer, solid state laser cannon (rapid fire type), and fifteen different scenarios to tax your tactical skills, an amazing seek and destroy auto pilot to zero in on enemy planes or tanks, and the standard photon deflector shields to divert the probing lasers of the enemy.

There are two training options, one for the tanks and one for the planes, and each option has three levels. And believe me, you're gonna need training for these guys are hard, and they never stop firing. Following these there's a final training mission where you face alternate waves of

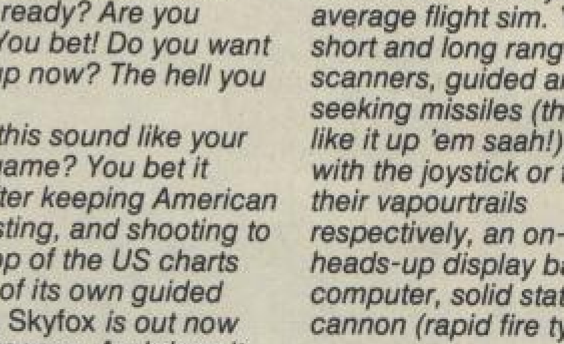
FAXBOX

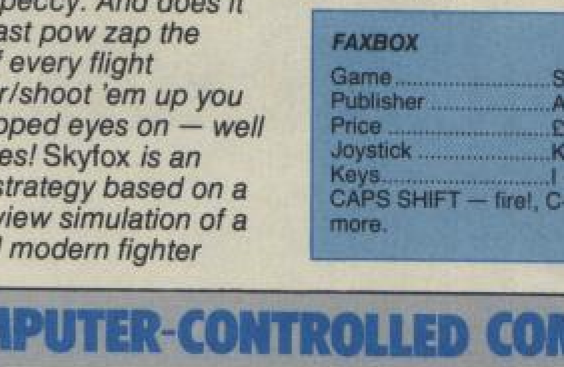
Game	SKYFOX
Publisher	Ariolasoft
Price	£8.95
Joystick	Kempston or Sinclair
Keys	I — nose up, m — nose down, j — left, L — right, CAPS SHIFT — fire!, C-computer, A-auto pilot, plus many many many many more.

COMPUTER-CONTROLLED COMBAT

This is your main scanner picture. It's sent by radio from the main computer at the base. On it you can judge the strength of the enemy's tactics, and choose a weak spot in its attack. Obviously the tanks or planes to take out first are the ones that are closest to the base. But you must also study your long range scanner to see how far away the next wave is — remember it'll take precious time to wipe out one lot of tanks and turn back to catch the others before they get your base. So judge this use of time carefully.

Another good stroke is to push through to take out the motherships. They're the enemy's bases and wiping them out will speed your victory. But once again, choose your targets with the utmost care — while you're out on a limb going for a mothership, some tanks or planes might be able to beat you back to your base! You can also use the scanner to get a bearing on your base when your shields are running down. Set the co-ords with the cursor and use the auto pilot to get back to base for a refit.





This is an enlarged section of the main scanner, as part of the zoom option on your computer. You can enlarge any one co-ordinate on the main scanner to see more detail, right down to the individual tanks. You can see yourself in relation to the enemy, and, using the pause option, study formation and tank/plane movements. It'll also tell you where you are in relation to the selected square, which sector it is, and how far the pictured war machines are from your base.

This screen comes in particularly handy when plane and tank icons become fused on your usual low resolution display. You can zoom in and see what really is in that sector, and make your moves accordingly. On the main scanner, you're only told the number of planes or tanks in the sector, but it helps to have these figures translated into pictures. It's especially useful for at-a-glance reference, which you need if you're in that sector yourself. It may warn you to get back to your joystick smartish before you get blasted to tiny little shards.

tanks and planes, to test your ability, high/low adaptability-wise. And that brings the total to seven levels of training, after which you should be ready for anything. And boy, you'd better be.

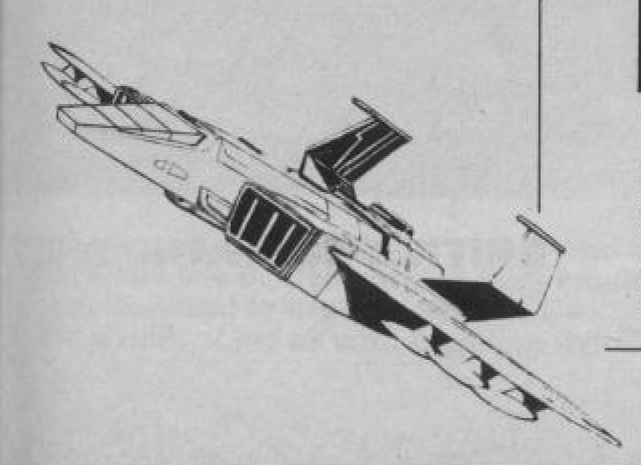
FIGHT TO THE FINISH

Now for the main event — the battle. You can choose from eight battle scenarios — Combo, Small Invasion, Full Invasion, Massive Onslaught, Halo, Alamo, Advancing Wall, Chess, and the aptly-named Cornered. This is the bit that sets this game head and shoulders above many others of its type — the strategy. This isn't just an average shoot 'em up, no sirree! By careful analysis of the enemy's movements while you're back at base, you can guess its strategy. Now it's down to you to choose targets to attack that'll destroy the enemy's bases, and so demoralise and confuse it. If you're really on top of your tactics, you can wipe them out entirely! So you have to have a quick mind, as well as a fast trigger.

The graphics are smooth and the foes are gruesomely life-like, but just so I don't swamp you with unqualified praise, I would say that my only real criticism is of the lack of colour in everything but the scanners. This isn't a major gripe though — after playing for a while, you get so caught up in the mastery of the graphic detail, you forget about it being largely black and white. Until you've chased a Foxbat nose-to-vapour-trail in some neck jerking turns in this baby, you've never played a flight/combat game.

So that about wraps it up. All that remains is for you to take your seat in your Skyfox, and zip off at Mach 1 into the sunset. (Cue sunset . . . okay Charlie, cue the victory roll . . . whadda ya mean "do you want butter on it, Mr Stroheim?")

Graphics
Playability
Value for Money
Addictiveness
9



FOX HUNT

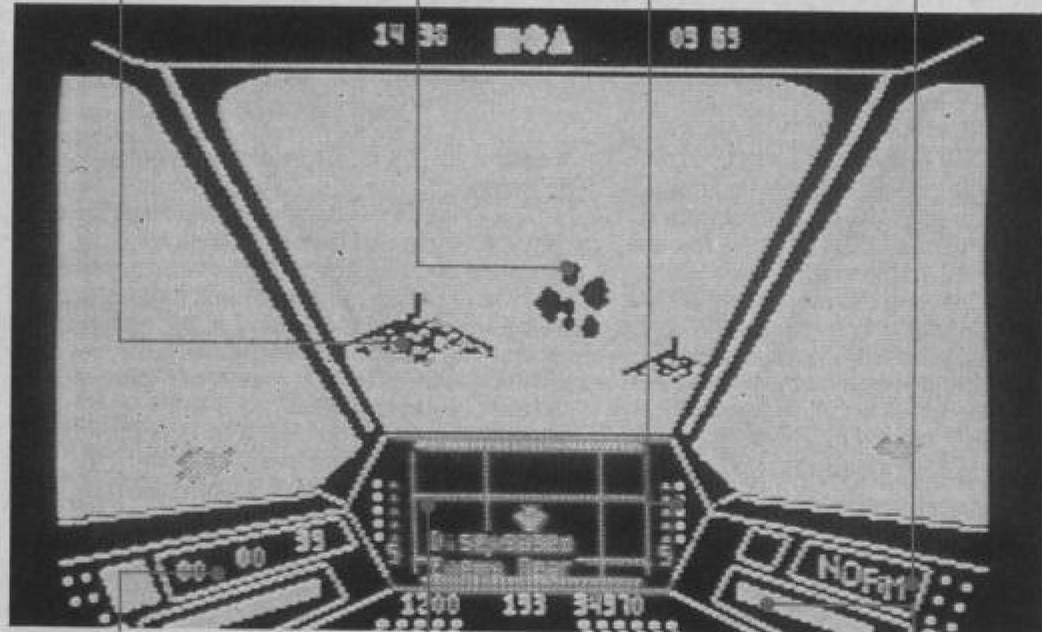
After your intensive bouts of training, you'll be just itchin' for some action. Well, I reckon you've come to the right place. Here's a little preview of some of the action you're gonna see. Tanks fodder memories, and planes to see. That's what you're looking down the business end of. I hope you've got the right stuff. Remember what I taught you; fly fast, watch your gauges and keep those metal birdies off your back.

Make sure you shoot these guys when they've got their backs to you. If they get a chance to turn around they'll pop you out of the sky like a clay pigeon! Shoot first and ask questions when you're safely back at base.

The cloud barrier lies between 1,000 and 10,000 feet. Above 10,000 somewhere between 30,000 and 40,000, you'll find the planes. You can save time and fuel by pressing U to go up to 30,000 and D to go back down to lower altitudes. Take the strain off your fuel tank.

Heat seeking missiles should be used sparingly. I know it's a temptation just to aim for their vapourtrail and let one of these fly, oh so easy. But there are more planes than missiles, so only pop them off when you really must.

Use your auto pilot to home in on occupied sectors. When you've reached a battle zone, the auto pilot will automatically dis-engage, returning you to . . . gulp . . . manual. Then it's all down to you.



The clock ticks away elapsed time into the mission. Time is one thing you have nothing of, so don't look at this unless you want to break out into a sweat. Fly fast and shoot to kill. Nothing can be wasted on this trip, boy; Fuel, shields . . . but most of all time!

By contrast with the detail of the base's computer scanner, your on-board computer lacks any resolution at all. Everything, including your own base, is shown as a cross.

Use the base computer to zero in on targets before you start 'em or you may find you've nuked your own base. Who's side are you on anyway?

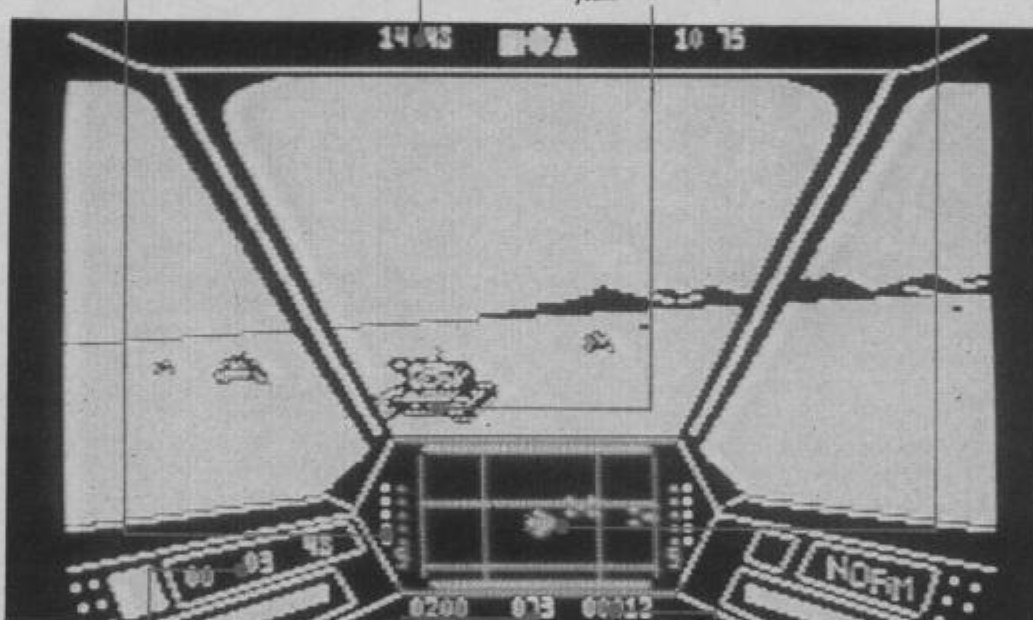
Shield strength is crucial to your survival, especially on latter scenarios. Keep an eye on this gauge, and when it drops close to zero hot-stick-it back to base for a re-charge. Ignore this at your peril, flyboy!

Watch your guided missile count. Don't go frittening them on tanks or planes — they're special long range little darlin's. Save 'em for those big fat motherships, and guide 'em in with your joystick, slow an' easy. Ba-boom!

This reading, in combination with the bearing, should help you keep precise track of where you are, when you aren't accessing the base computer's scanners. You've probably got better things to do — like staying alive!

These are the babies! More armour than Sir Lancelot, more speed than Jackie Stewart and firepower to match. A good tactic is the simplest. Just lean on the fire button and hold it. Then fan your laser across the advancing line. Easy! Oh yeah?

You can toggle the on-board scanner from an overhead view to this forward scanner. This is mighty handy for bopping off those motherships with guided missiles. Just target them up with your forward scanner, and let fly!



Fuel gauge. Thrusts can certainly get you out of tight situations, but they're very fuel intensive. And so is climbing altitude to go for the planes. Start off high, kapow the planes then coast down for the tanks. That'll save a lotta fuel.

This is your bearing indicator. It's based on a rule of North 0, East 90, South 180 and West 270, back round to North again.

Keep your spare eye (how many have you got, hotshot?) on your altitude needle. Above 10,000 feet you'll be zapping planes, below that you'll be facing the wrath of the tank corps. Oh, yeah, and don't bottom your plane on the ground too much, as on the higher levels this can wear down your shields real fast!

128 REVIEW

SPECIAL *k*

Last October, YS flew *Max Phillips* to Madrid to look at the new 128K Spectrum. Last week, we paid his tube fare to Bethnal Green (well, someone's got to live there!) to try out the new UK version.

It's here, it's official, it's a 128K Spectrum. Indeed some of you may already own one! It *is* different from its Spanish ancestor but not a lot. In case you've missed the stories while Sinclair took its time bringing the machine to us, the 128 is two computers in one — a 48K Spectrum+ and, in 128K mode, a greatly enhanced Spectrum with some new hardware and software that's vaguely compatible with the old machines.

SOUND AND FURY

People are already moping about the 128. It may not be as radical as the ZX80 was but it does have some worthwhile new features. Sound has come to Sinclair at last — using the sound chip through the TV is going to change games as we know them. You've got three voices, alterable waveforms and various special effects. It's pretty good from Basic but machine coders with interrupt-driven sound routines are going to blow your ears!

The monitor socket (both RGB and Composite video) is simply a sight for sore eyes. BRIGHT colours are no problem with RGB because there's an extra Intensity line — but you'll need the right sort of RGB monitor. The Midi musical instrument interface is gaining ground with pro-musicians everywhere — who'll be the first to use a Speccy on-stage? And the RS232 is handy if Sinclair had taken the trouble to document it.

The extra 64K is used as a RAM disk for Basic and is an incredible time-saver. Machine code programs can, of course, use the whole of Ram giving around 104K to play with — space for some mind-blowing games and some really useful applications. The 'missing' 16K of RAM is apparently used to hold a copy of the ROM and is write-protected so that you can't POKE into it. However, if you can unprotect it from machine code, then you'll have 120K. You could even do tricks like making alterations to ZX Basic.

A BASIC BASIC?

The 128K mode software is, however, a bit of a dead fish. Pretty pop-up menus, tape volume testers and so on might be fun for a day or two. But remember, this is the first time Sinclair has had the chance to make all those improvements to ZX Basic we've been asking for in the last four years. All the 128K mode applications could be written in a week flat for the old Speccy.

Fortunately, the situation with other software is much better. Sinclair's had software houses labouring away on 128K masterpieces for months and some of it looks to be really impressive... we're in for some fun! The package comes with two free new Ocean games (but no Horizons or Intro tape) and a huge poster listing 128 add-ons and software. Shame we didn't get the Ocean games though... maybe one of them's *Streethawk!*

Scanning the poster for the 128K games is like reading the charts for the last six months — *Winter Games, Three Weeks In Paradise, Robin Of The Wood, Rasputin, Rocky Horror Show, Return To Eden, Never Ending Story, Sweevo's Whirled* (note the new title for the current Castle Rathbone fave rave!), *Yie Ar Kung Fu, Fairlight 2: The Trail Of Darkness* ... err, hang on a sec, we haven't seen a 48K version of that yet. Most of these are just bigger versions of existing games so we'll have to wait for 128 originals but I don't think it'll be too long.

Hardware's less of a rosy picture — it all works in 48K mode but how many of your treasured add-ons (your Microdriver, ZX Printer, Kempston S and so on) are going to work in 128K mode? Then again, asking for miracles is always an easy thing to do...

And I could moan for days about the documentation. It's the old Spectrum+ User Guide and a 14-page booklet detailing most of the 128's new features. Oh well, no doubt someone will make a fortune by writing a manual for the machine.

So, who's gonna buy one? Well, if you don't own a Spectrum yet then get one of these. If you're already one of the family, then wait until your ol' 48K keels over and dies of old age. Then get one of these. The price is crucial... at around £120 it's a goer but if Sinclair does the dastardly and comes in at £160 then there will be fewer takers.

And now we can start dreaming about the next Speccy!



Elite — spectacular crashes in space on the 128.

It seemed too good to be true. A 128K Speccy that would run all existing software. Well, maybe it isn't quite true. It seems that there could just be some software that won't work on the 128 in 48K mode. And although our review 128 has EPROMS, it's doubtful if Sinclair has the space or time to fix the problem. But whatever you do, don't panic — it may affect only a handful of recent games.

Certainly, the 128 goes a long way to being a Spectrum+ when it's in 48K mode. All the new features get switched off. And we were led to believe that the original Spectrum ROM is copied to RAM and write-protected. Not so on our machine — the 48 Basic mode and 128 Basic mode have identical code where the ROM is and this is subtly altered from the original ROM. The 128's extra software features are accessed via new code in RAM (which explains why many old POKEs and add-ons won't work in 128 mode) and by bank-switching new bits of code, as necessary.

So, in 48K mode, there's a whole new section of code in the previously unused locations 14446-15615 and five places in other ROM routines where calls are made to it (at 75, 2898, 4937, 7037 and 9798 decimal). The calls won't affect commercial tapes because no programmer worth his Wimpy relies on ROM routines — but they may affect some of your own code if you leap in and out of the ROM, in unusual places.

The big problem's the unused locations — they used to hold OFFh and are apparently useless. But some games programmers use a block of 257 of these bytes as a vector table for their interrupt routines, so saving the space needed to set one up in RAM. Games with this feature won't run on the 128! And to save you going boss-eyed with Lenslok — Firebird's Elite is one such. Let us know if you find others.



BRITISH BORN AND BRED The
— y
alm
And

Here's where the changes have been rung. For starters, 128 Basic dispenses with keywords.

In return you get a screen editor for Basic. Just zip the cursor where you want and change your program at will. And the listing is automatically indented to make the line numbers stand out. This makes editing so much faster and more enjoyable. But all's not wonderful. A lot of editing functions such as Top-of-Program, End-of-Next-Line, Delete-Word and so on are only available if you buy the keypad. To move around quickly, you have to use LIST — the Speccy's old list command takes over and you often get a horrible mixture of what was on the screen before and after. And there are other bugs — try entering very long lines if you dare!

The extensions to Basic come in two forms — some new commands and a pop-up menu. SAVE!, LOAD!, CAT! and ERASE! let you use the 64K RAM disk for instant loading and saving. Files in the RAM disk survive NEW but not resetting or going into 48K mode and are, of course, lost when you switch off. But the RAM disk is still handy when you're working. You can use it to create Basic programs bigger than the normal 40K by doing them in sections and using SAVE! ...LINE and LOAD!. However, it's a bit naughty that you can't OPEN a channel to the RAM disk and write data files to it — you have to muck about with SAVE ...DATA.

The new sound chip is accessed with the incredibly powerful PLAY command. This is followed by up to three strings, one for each channel, containing sound instructions in a single letter language. For example, PLAY "C", "E", "G" produces a beautiful chord while PLAY "UX19W6C))" sounds like a nuclear reactor just before it blows. If you have a midi instrument attached, PLAY gives you full control.

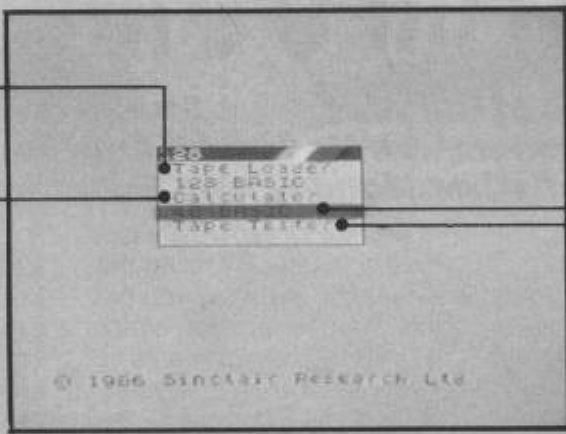
Finally, the command SPECTRUM switches instantly to 48K mode, taking your current program with it. This allows you to write a program for a 48K machine using the added benefits of 128K mode. Saves you having to use SAVE and LOAD I suppose. And yes, there's apparently no way to set the RS232 baud rate...

128K — A TURNED ON SPECCY

This is a Sinclair? Sure is, pop-up menus and all. And you'd better get used to the new copyright message right now. There's even the Sinclair equivalent of the telly testcard — just push the reset and hold down the Break key. Very useful, as you have to tune the TV for both picture and sound (the testcard beeps at you) and the best visuals might not give you any sound at all!

Just how lazy can you get? Now any fool can get his 128 going — press this and it does a LOAD"" for you!

Bit silly this. It uses Basic's built-in calculator to let you enter and evaluate any old expression. You can even enter LET commands to use Basic variables as calculator memories. But you can only call it up from the startup menu and it's hardly a radical improvement on a Basic PRINT command. Could be fun with the optional keypad though...



Choose this and everything you see here disappears. You now have a Spectrum+ but beware, there's no way back to 128K mode from 48K Basic.

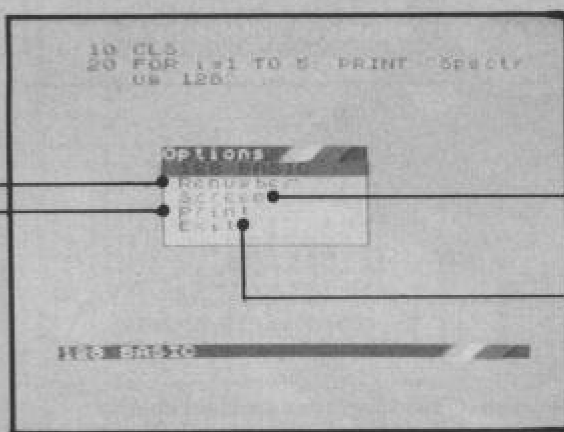
This lets you set the volume control to the best level for loading. It's very simple and could prove useful for beginners but why devote precious ROM space to it?

THE BASIC MENU

Just press EDIT in 128 Basic and you're into this menu. The big snag is this — if you type in something you don't want on an old Speccy, you press EDIT and Return and it's gone. The same keys in 128K mode just put you back where you were. Because the screen editor has on-entry syntax-checking, you can't get off a line that isn't correct. And if you want to delete it, you've got to use Backspace lots of times. Or you could go right out and restart 128 Basic — just hit EDIT, 4 down arrows, ENTER, 1 down arrow, ENTER. Or buy a keypad...

As promised, the RENUMBER function. Shame it only renumbers your whole program from line 10 in steps of ten. I've seen better on the old Speccy.

This lists your program on a printer. It's a LLIST substitute that's presumably needed because the old LLIST works with the ZX printer which can't be used in 128K mode — there's code where the printer buffer was!



This sets Basic to work on the bottom two lines of the screen so that (the manual claims) you can save and print displays from Basic without corrupting them. Perhaps Sinclair hasn't noticed that pictures that don't use the bottom two lines of the display went out in 1982!

If you don't want to go back to Basic, here's your chance. Exit takes you back to the startup screen. And yes, you can nip back and test your volume control without losing the program you're working on.



The panic's over for all those of you who thought you might have to learn Spanish to use the Spectrum 128K — you'll find the British version very familiar. The first thing you'll notice is that the new machine looks almost identical to the Spectrum+. But the heatsink bolted onto the right hand side gives the game away. And in a radical break with tradition the Sinclair and 128K logos are in red!

SCOOP

A DREAM COME TRUE?

Hot on the heels of Rainbird's *Art Studio* and Softechnic's *The Writer* comes Generation 4's mouse and icon games designer — *Arcade Dream*. Esther Monday and Pete Shaw try it out...

What've we always said about games designers? That the *Hurg* and *Games Designer* are too limiting and systems like *White Lightning* are just too complicated? Little did we think that someone would sit down and write the perfect package. Generation 4 is not a software house many people have heard of (*Including me! Ed.*) but they've been turning out stuff for other labels for nearly two years and using a primitive version of *Arcade Dream* since last April. Now programmer Mat Schmidt has tarted it up and got G4 to put it on the open market.

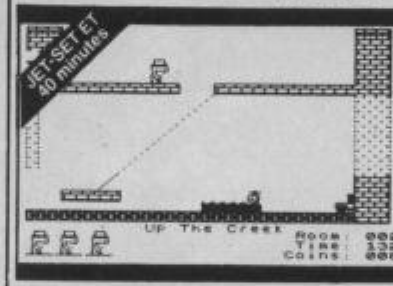
Arcade Dream really is a dream to use. By using the mouse (or joystick) you put your games together simply by picking items from its many menus. At any point, you can hit Play and try the game out. And the results can be stunning. The second tape in the package contains a set of pre-formatted routines that mimic the style of many current chart-toppers, from *Airwolf* to *Alien 8*, *DT's SuperTest* to *Dun Darach*. You simply select the game-type nearest to the game you want to create and then use the menus to make the necessary alterations.

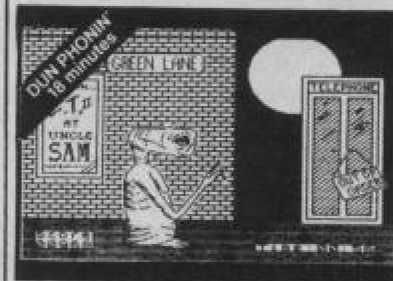
Good results can be achieved in a day — and they do look like the real thing. *Arcade Dream* could really cause quite a stir especially for the budget labels. At £14.95 it's not cheap but it will let lots of people get into their own games. But software houses have got some waking up to do. A dream come true for you could prove a nightmare for their sales figures.

FAX BOX

Title	Arcade Dream
Publisher	Generation 4
Price	£14.95 cassette
Joystick	Interface II or Kempston

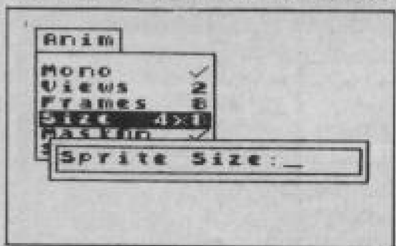
ET OR NOT ET? — THAT IS THE GAME!



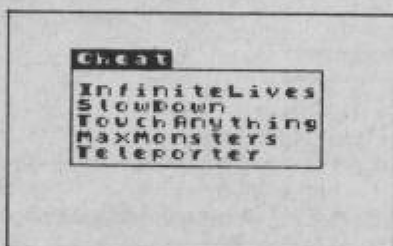


To put *Arcade Dream* through its paces, we got to work on a game of the film *ET 2* (although Mr. S has yet to phone us up and ask for the rights!) Once we'd done the ground work, we used the GameType menu to try out three variations on the theme. The Gargoyle-type was a doddle to do but no-one's managed to solve it yet. Our Ultimate-clone was more work but give ET a sabre and you couldn't tell him from the real thing! But we had most fun with our own Jet-Set ET — who could resist him collecting coins for the phone?

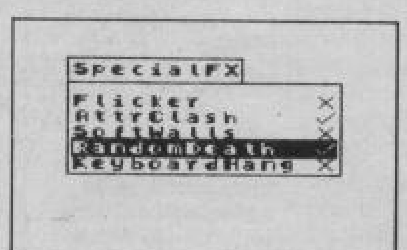
TAKE IT AWAY MENUS



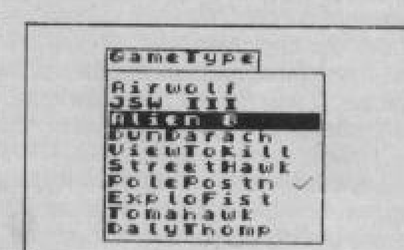
Here's where you set up the animation parameters for the objects in your game. Remember that some of the options will change depending on the game type you've selected — for example, if you're doing a *JSW*-type game, the maximum sprite size is 3×2. *Arcade Dream* actually uses different types of sprite code for its different game types...



The Cheat menu could put *Hacking Away* out of business... selecting an option will display the relevant POKEs for whatever game is being worked on. Finished games run independently of the package but fortunately they aren't protected so you can put the POKEs in their Basic loaders. Imagine if you created a *Fairlight*-type game and then found out it was protected in the same way!



I thought someone was pulling my leg with this menu — but no, Mat Schmidt says it allows you to put some odd quirks into your games so that they look 'hand-programmed' rather than churned out with *Arcade Dream*. One odd quirk of the program is that the SoftWalls option only seems to work in ViewToKill-type games. A little joke perhaps Mat?



Here's the incredible bit... G4 has used some strange names for its game types but you quickly get to know them and can select the one that fits your idea best. For example, you could use the *Airwolf*-type game to do a *Scuba Dive* or whatever. But the best thing is that G4 will be bringing out further Game-Type tapes to give you a better choice and keep up with new games...

THE ULTIMATE ET?

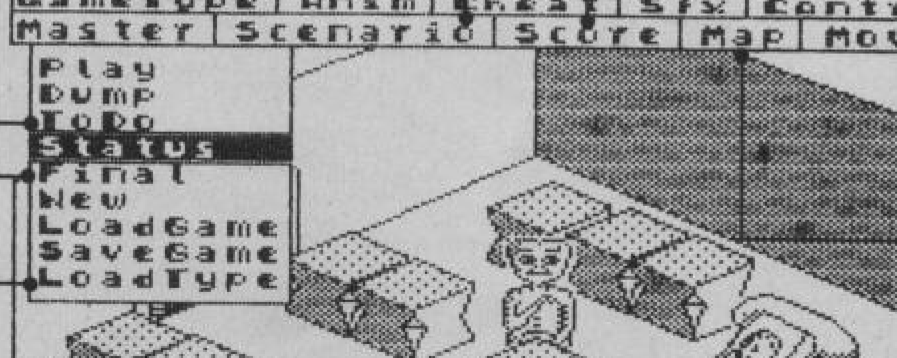
The Scenario menu lets you describe your storyline by selecting options from further menus. *Arcade Dream* then automatically generates relevant background screens.

Score lets you assign scores to various feats such as picking up an object, killing a nasty, arriving in a particular room and so on.

This clever feature gives you a list of any parts of the game that are incomplete and need fixing. This lets you develop the game in any order you like without fear of missing some stage out.

This saves your game ready-to-run on to a blank tape with a simple Basic loader — you can add a previously designed loading screen if you like. And that's final!

This lets you load up a new selection of game-types for the GameType menu. You get one cassette of types with the package... further tapes will cost £7.95 when they're available.



Want a professional look to your game? Well, you should have defineable keys, Sinclair and Kempston joystick support. Just tick them on this menu and they're there in your game...

Map lets you examine and alter the layout of rooms or screens in your game, depending on what type of game you're doing. In a Sports game, each 'room' would be a different event.

Information about memory usage.

O'LEVELS

not just revision but also tuition for the Spectrum 48K

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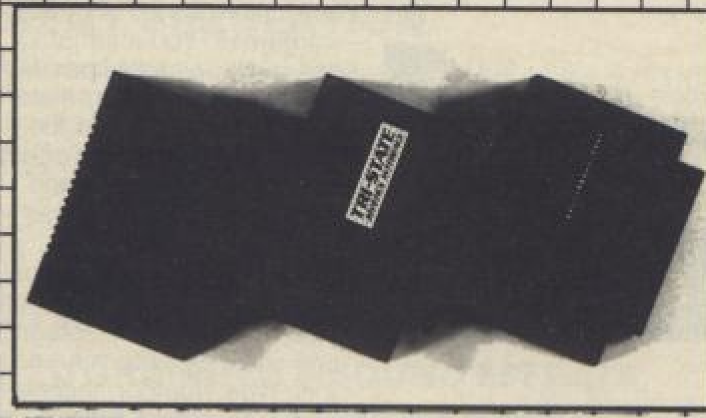
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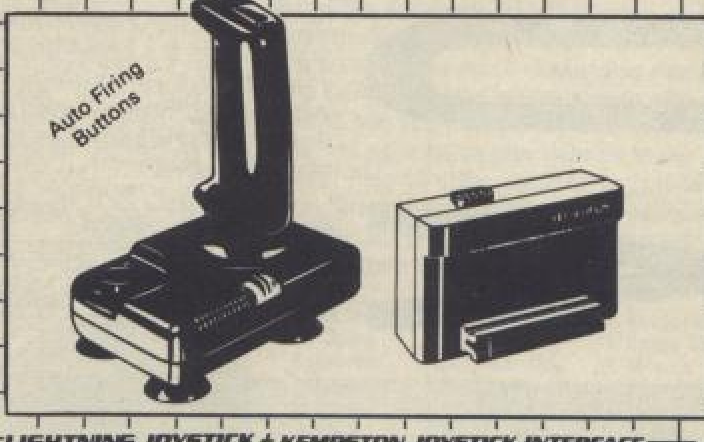
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AUSTERLITZ

Austerlitz
Lothlorien/£9.95

Max I thought Austerlitz was a station in Paris. It turns out it's named after Napoleon's cracking victory over the third allied attempt to stomp on him. Incidentally, on that cold, misty morning in 1805, it was Russia and Austria that suffered the away defeat; our mob didn't manage to turn up!

This is the scene for the latest in Lothlorien's very collectable series of trad wargames. You attempt to repeat Napoleon's formidable victory by pitching your well-trained troops against the slightly larger but less effective Austro-Russian army and killing as many of them as possible.

It's all done as well as usual; there's a scrolling board (only a little larger than the screen!) and square pieces marked with their type, number, morale and so on. The game's made much more playable because your Corp commanders are intelligent and will look after their chunk of the battle and offer reports and advice to you until you want to take over direct command of their units. Lothlorien also avoids 'eyes-in-the-sky' by making the Russian's disappear when they move. You'll only locate them when you meet them!

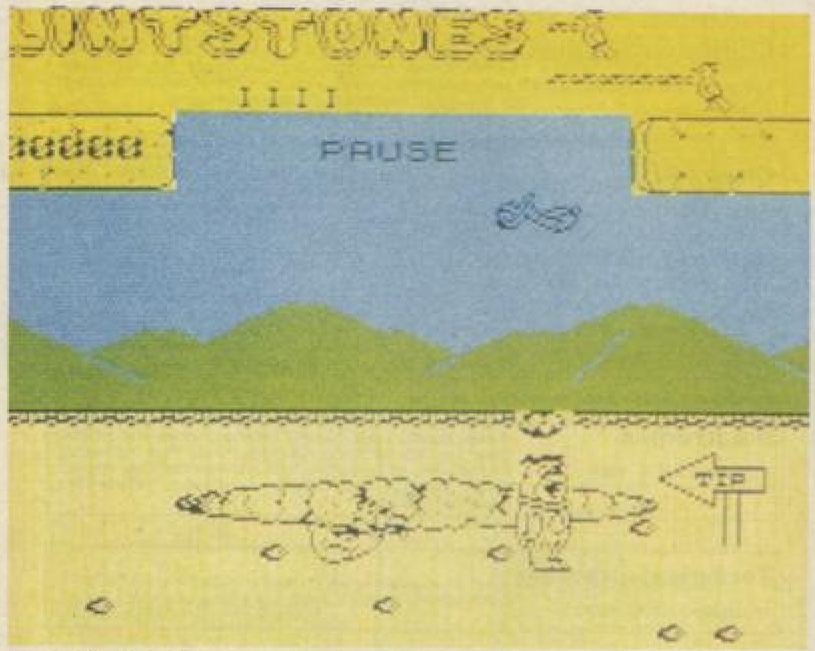
Entering orders from the keyboard is a bit fiddly and tedious but not so bad that it'll put wargamers off. What worries me is that it's all a bit in Boney's favour; you aren't fighting a losing battle. Still, I suppose it's the same when you play Welly in *Waterloo*. What I want to know is do the French think Waterloo is a station in London?

Graphics
Playability
Value for Money
Addictiveness
7



◀ MORE SCREEN SHOTS ON PAGE 27

YABBA DABBA DOO!



Quicksilva/£7.95

Luke The trouble with games based on cartoons is that everyone already has a pretty good idea of what the graphics should be like. And, to be honest, the graphics in *Yabba Dabba Doo!* won't get Hanna Barbera hot under the collar — they're crude, they have attribute problems and as for the colour — dull or what?

But that aside, I liked the game. You have to guide Fred Flintstone around the prehistoric landscape that'll one day become the mighty metropolis of Bedrock. Fred has to pick up all the small rocks on the site of his house and dump them in the local tip. Once done, he has to investigate the surrounding area for large rocks, pick them up and use them to build his own house.

There's no shortage of large rocks . . . indeed, hang around too long and you'll find out where they come from — a pterodactyl will fly over and drop one right on Fred's head. Other creatures that hinder Fred's progress are ankle-biting turtles, prehistoric kangeroos and 'Dino' dogs. Something else to watch out for are the rolling rocks — easy to manoeuvre around in the early stages of the game, but tricky later on as Fred's neighbours start building their own homes.

Fred can walk up and down, left and right, and moving from street to street involves a combination of two controls. But, with luck, you'll come across the cave-car that allows Fred to zip about speedily in true arcade style.

The size of the game is deceptive — there are a lot more screens to investigate than are apparent from first attempts to get to grips with it. Fred can earn money at the local quarry to hire a dinosaur to build the roof and, when his energy is at an all time low, he can hang out at the drive-in movie or burger bar and get a hug or two from his true-love Wilma. The game ends when Fred manages to pursuade Wilma to follow him home . . .

Much to my surprise, *Yabba Dabba Doo!* is a very addictive game once you get the idea of what you're supposed to do. The game is a lot less manic than I would have liked but, apart from the graphics, it has all the qualities needed to reduce your mind to rubble. If you're a Flintstone freak, it's an essential purchase . . . if not, then check out the TV re-runs and then buy it!

Graphics
Playability
Value for Money
Addictiveness
8

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- ★ 2 from 9 substitutes (the FA tells us so).

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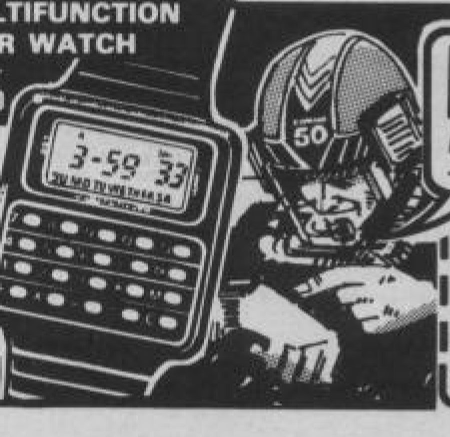
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ID



CRL/£7.95

Rick Fans of The Jung Ones should love this. Or will they? Who cares? as ID himself (but is he a "he"?) would say — and frequently does, if you're as good at this game as me! This is one for those people who like to engage in long surreal correspondence with the gas board as to why they plumbed your cooker into the bathroom. Hours of mirthless endeavour will come to no fruitful end — and you'll still end up making omelettes in your shower cap.

In its own immortal words the game plan is to piece together ID's shattered memory to discover "who I am, who I was, who will I be". The poor thing is an intelligence left on earth before time began and needs your help to remember his and our history. To do this you can use a line of text to ask pertinent questions. Warning: ID's idea of pertinent won't be yours.

The screen will go different colours according to ID's response — black for depressed, red for angry — and the amount of trust you win is shown as a percentage. Abuse or nonsensical questions lose trust. ID will want to know those closest to you (or the weirdest or fiercest) and will "think" about your answers and bring them up at the most unexpected times. It's sophisticated 20 questions, though "give us a clue" might be your plea.

The blurb hints that ID's persona is more sinister than it first seems — and some pains (in the neck, most of them) are taken to endow him with human qualities. He gets scared, crazy, confused — even dribbly and scrungy. And he often gets annoyed, nay incensed, and demands that you speak to him. Aeons of amnesia have done nothing for his manners. ID even dreams and babbles with arcane clues secreted therein. But forget the pseudo-psychology — it's nearer Fraud than Freud. It provides a veneer of sophistication and a lot of red herrings. ID is a straightforward lateral thinking game. And like so many it ultimately fails because it takes itself too seriously. It lacks wit, humour and fundamentally, charm. Charm? Yup. Spock is logical and lovable. ID is just a smartass!

Graphics
Playability
Value for Money
Addictiveness
6

TWiSTeR

System 3/£7.95

Rick Ah! What's in a name! T'zer peepers (and aren't we all, eh?) will of course know that *Twister* is the third incarnation of System 3's long awaited *Mother of Harlots*. This title seemed a little raunchy for the shelves of Smiths so *Mother of Charlotte* was born. Safer, true, but boring, smacking of an undiscovered Bronte novel. And, lo, it came to pass that *Twister* was the climax of all this name calling and the marketing men saw that it was good.

Dads will remember *Twister* as a garden game usually won by double jointed yoga gurus able to put their right ankle behind their left ear. This might be a useful skill for Mother of Harlots but we like it plain and simple here at Castle Rathbone.

This *Twister* is a six level arcade shoot 'em up. Level one is essentially a platform. Monoliths like those from 2010 whizz at you. Some carry goodies that increase your fire power, others speed your leaps. Your task is to play cosmic stepping stones, jùmping from one to another without falling into galactic oblivion. Meanwhile, the wicked offspring of Twister — sputniks, harpies and variously mutilated heads will attempt to put up your life insurance. None appears able to exterminate you at a stroke but all contact is detrimental. Your tactics will thus vary between high speed head hunting — but losing your fire power — or wily evasion making sure each shot counts while you pick up your space goodies.

This principle holds good throughout the next five levels. The next sequence is the first of *Twister*'s corridors of power. Here you only have lateral movement but, à la Nightmare on Elm Street, you can walk about on the ceiling. Fine if you don't wear a wig. More ghoulies enter here ranging from Ghostbuster evacuees to fat men with whips.

Level three is (another) corridor, but the next is whizzo, fab and brill. Moving through a hyper-space type transition brings your rocket back-pack to life. Now you can manoeuvre for the first time over all the screen, whilst all around a galactic electric storm crackles and sparks. Goodies and baddies materialize at random and you have to plot a course between one to get to the other. Savvy?

Success here takes you to the final frontier. The Ultimate Confrontation with Twister who sadly looks like a deflated football. By any other name *Twister* is a thoroughgoing if derivative whizz bang shoot 'em up. This is one for the Jung at heart who feel like shooting hell out of the cosmic mother.

Graphics
Playability
Value for Money
Addictiveness
7



SPITFIRE 40

HOT SHOT

Mirrorsoft/£9.95

Gwyn How I remember that cold morning in 1940. Ginger and I were in the Officers' Mess. 'We really must get this mess cleared up,' I said. Suddenly the alarm! 'Scramble, Ginge, scramble!' I shouted. 'Oh dear,' he said, turning from the eggs, 'I've just started to fry them.' Sometimes I have my doubts about Ginge . . .

• • •

Of all the aircraft in the history of aerial combat, the Supermarine Spitfire has the greatest aura of romance and adventure, bar none. Of revolutionary design, with a top speed of 350 mph and amazing manoeuverability, it became an integral part of Britain's airborne defence against Hitler. How many thrilled to the sight of this huge mechanical bird locked in deadly combat over the fields of Kent during the Battle of Britain?

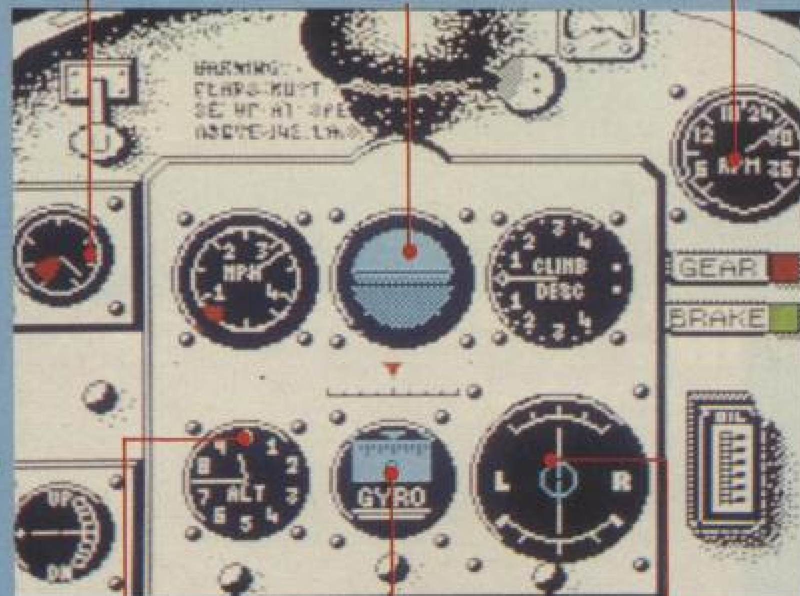
Flight simulators are always among the first software releases for a home computer, but they've recently gained a new lease of life by giving you something to do once you get up into the air other than just flying from airfield to airfield. That something is . . . killing people! Now's your chance to test your canine canniness in a dog fight to the death against the beastly Boche, in what appears to be an accurate version of the Spitfire, with only minor compromises for the computer.

We've come to expect polished presentation from Mirrorsoft and this is no exception. The twenty four page booklet contains not only excellent clear instructions and step by step guides to getting off the ground and what to do when you find Adolph up your exhaust, but also a brief note on the theory of flight and a history of the plane (from which I cribbed the above potted

No stopping to top up when you're fighting Jerry, so keep an eye on the fuel gauge. With only 45 minutes flying time you'd be a fuel not to.

The Artificial Horizon, and watch it rock 'n' roll as you put your Spitfire through a few acrobatics. It also flashes if you're being shot at. If you have problems understanding it an Altitude Indicator has been added, bottom left.

Revving up the engine is all important in flying. You'll need it way up at 3,400 rpm to take off then down to 1,900 for cruising, so you're all prepared for the odd burst of speed when you see the enemy.



Your altimeter has two hands, for 100's and 1,000's of feet. It's wise to try and take the enemy from above, but you can also play games of chicken, going into ground scraping rolls.

When you set out you'll be given a bearing for the enemy, but take time to work out the way back, using the compass here, unless you want to ditch in a field.

A neat little trick to take you out of harm's way is to slide sideways. The top needle here indicates how far you're Slipping while below it is Turn.

Like all those Road Safety ads say, use your rear view mirror. If you find you've got a plane on your tail, prepare to take evasive action!

Band-it's at five o'clock. So I'd better get this Fokker in my sights if I'm going to be home in time for Glen Miller.

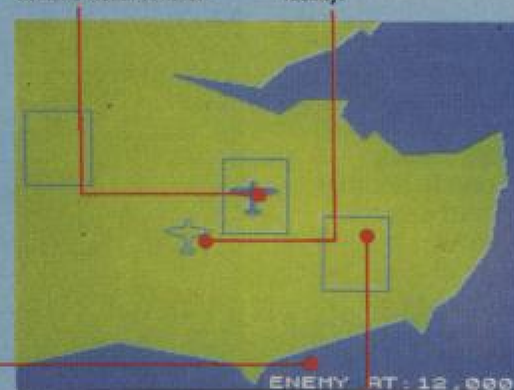


Though it's not easy to see with the Spectrum's resolution, there's a pixel thick line here to indicate your speed. After all, when you're locked in combat you don't want the distractions of flicking to the instruments.

A similar miniscule indicator here provides a guide to the rudder direction . . . if you can see the ruddy things.

The Hun over the Home Counties! You can use this as a rough guide but when you reach the battle zone it's a question of twisting and turning until you achieve visual contact.

A little poetic license in the map, to show where you are. At this stage you're still in the vicinity of your base. The Map screen also provides a useful freeze facility.



A useful bit of info from the johnnies at HQ. After all, you'd hate to miss the rendezvous because Jerry flew over you, wouldn't you?

The three squares are key areas, and successive presses on 'N' magnify the map to help align yourself with the runway. It's advisable to get to know those green fields a bit before you fly too far from home.

facts . . .). There's also a four page insert containing the important controls and details, such as how to regain control if you foul up.

This attention to detail continues in the program, with separate options for Spectrum and Spectrum + keyboard controls! And the atmosphere is there too. Although you start with no flying hours, once you've made a successful landing you can save your log which provides continuity of character. Be warned though, as you rack up the hours you'll find the program becomes less forgiving of your errors, increasing your chances of pranging the crate — a nice way of handling difficulty levels.

There are two practice modes, for flying and combat, but the real test comes when you leap into the cramped cockpit, throw out a cramped cock or two, and rev up the engine — which sadly sounds more like a gnat in your helmet thanks to the legendary Speccy sound! Space toggles between the instrument panel and the cockpit view. So, taking note of where you can expect to encounter the Hun (in feet and compass bearing), it's up, up and away — probably instrument flying until you're in the danger zone. Actually the cockpit view is fairly bare, though Mirrorsoft claims you may eventually be able to use landmarks for navigation.

It's probably easier to use the map screen, again accessed by a single key stroke. Then it's war in the air and machine guns blazing as you try to out-manoeuvre the enemy. Here it's the screen view almost all the way and I found it as exciting as any arcade game, suddenly looping over to put a plane that was tailing me directly into my sights. You have to learn to pre-judge targets though and their tactics are cleverly programmed too.

Mission accomplished (and it's not that easy), it's back to base to swop stories of the Heinkel that nearly got away, with a few more flying hours to your credit. *Spitfire 40* is a friendly program, not nearly so difficult to get into as some earlier simulators, and it's very engaging with its role playing element.

* * *

I snapped on the 'For Hire' light and prepared to taxi up the runway. 'Chocks away, Ginge!' I yelled. 'Aww — and I've only got the coffee cream and that's my favourite,' he said. Quite seriously, I have my doubts about him.

Graphics
Playability
Value for Money
Addictiveness
9

GERRY THE GERM

Firebird/£7.95

Rachael *Gerry the Germ* comes in a square box. *Gerry the Germ* has its instructions in the form of a cartoon poster. *Gerry the Germ* is obviously supposed to be a fun game. Well let me tell you, fun it ain't.

At the heart of this biological misadventure is a good idea. Somebody's brain was working when they came up with the idea of showing your effective infectiveness by undoing all the good of a body's antibodies. But somewhere between hand and mouth something went wrong.

The problem is that the interlinked arcade games just aren't fun. What they are is infuriating. This must be the first time a germ has come close to causing a purely mental state — a breakdown. I battled for ages to try and capture oxygen in the lungs or stop that leaky bladder but in the end the main lesson I learnt wasn't biological. Bad taste jokes and funny sprites do not a good game make. Somebody forgot to ensure that it was playable.

But the worst thing is this — because it's a 'fun' game, Gerry doesn't die. Indeed it seemed set to go on forever until I rembered that advertisement. I reached for my Domestos. Well, it is guaranteed to kill 90% of all known germs. From now on I'm leading a clean life.



Graphics
Playability
Value for Money
Addictiveness
4

3-D SLIME



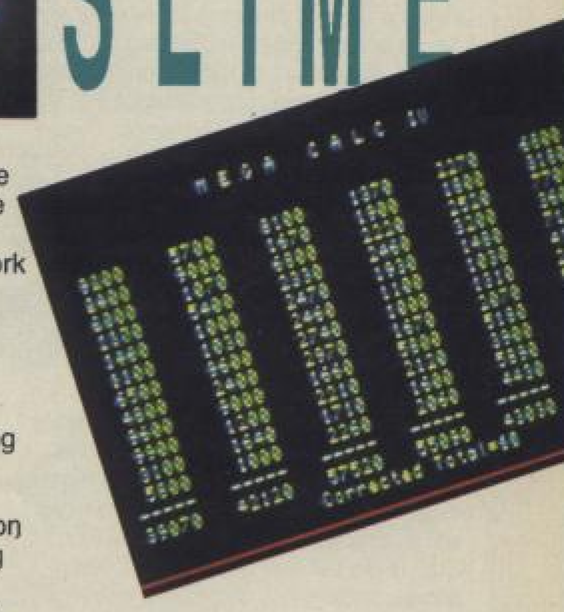
Datalink/£12.95

Phil Squelch! You ever wondered what happened to all the slime that got deposited on Bill Murray in Ghostbusters? Weeeeell, he had a shower, see. And the slime went through the New York plumbing system. Now it is a little known fact that *in* the New York plumbing system there is a freak wormhole in the space/time continuum, and animated antimatter runs amok in the sewer system.

In order to stay alive, the little slime blob (G'nite John-Boy, G'nite Slime-Blob) must munch its way through little piles of antimatter, whilst avoiding the mutant fourth dimensional bowling balls which roam the endless subterranean terraces.

3D Slime is a Datalink program and is a very addictive little game. Actually it's not a little game, being a sort of 3D Pacperson meets *Gyroscope*. I couldn't leave it alone, and more interesting still is that like most real arcade machines, the QL drops your score onto the MD cartridge for posterity. This will stay there no matter how many times you have to backup the game too, as it copies all the files.

A lovely looking, simple to play, but hard to master, game. Oh yeah, there's even a phoney spreadsheet screen on F5, in case the Boss comes in while you're playing it. Ber-rilliant!



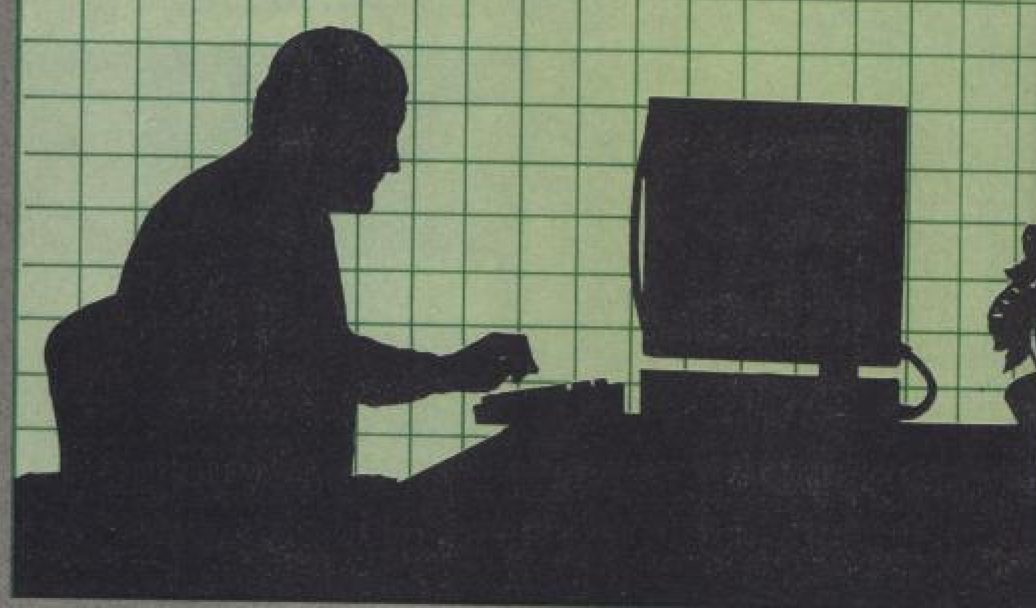
Graphics
Playability
Value for Money
Addictiveness
9

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Using the data file on microdrive or cassette prepared by the cash book program, this software will produce comprehensive end-of-year reports ready for audit by your professional adviser. The Gemini cash book and final accounts system is now in use by many thousands of businesses and as a 'classic' professional program has been translated for a wide variety of micros. Cash - book and final accounts alone warrant the purchase of this OFFICE MASTER program pack.

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SPOT THE BALL Competition

Have you got beautiful ball control? Dribbling at the thought of a copy of Activision's Ballblazer? Well, we've got 50 up for grabs and all you've gotta do to win one is spot-the-ball!



Here they come onto the pitch! We're about to witness an amazing game of football and what makes it different is that it's a game of two teams. First we've got Andrew, his official height is 5'4" and he doesn't look much taller than that. Then there's Philip a real pro — most of the people who remember when he was a good footballer are dead.

Well, what sort of game will this turn out to be — that's a question mark everyone's asking. And we're off . . . oh, what a wonderful header by Philip and perfectly controlled by his foot — it would have gone into the goal if the goalie hadn't stopped it. Real possession football this . . . and Andrew has lost it . . . but T'zer is up there again, what a ball . . . kicked wide of the goal with such precision.

It really is anybody's game and with eight minutes to go the match could be won or lost in the next five or ten minutes . . . oh and look what's happened here they've lost the ball — one minute it was on the pitch and the next it wasn't . . . what a turn-up for the books. We certainly wouldn't have expected that unless we'd been expecting it . . .

Can you help Andrew, Philip and T'zer find their ball? All you've gotta do is study the photo and, as in all good Spot-the-ball compos, mark a big cross where you think they'll find it. And here's a hint . . . looking at the position of the players'll give you no clues at all! Now clip out the coupon or a photocopy and send it to Spot-The-Balls-Up Compo, Your Sinclair, 14 Rathbone Place, London W1P 1DE.

Name ....

Address ....

....

....

..................................Postcode.....................................

(Sweet) F.A. Rules

Entries should reach us no later than April 30th with no allowance for injury time.

Employees of Activision and Sportscene Specialist Press will be shown the Red Card if they attempt to enter.

The referee's decision is final — even if he is as blind as a bat.

Have you got a burning desire to be on the telly? Well, you're going the right way about it — unless you use this program. *Andy Pennell's AutoFade* provides the perfect protection policy for your TV.

FADE AWAY

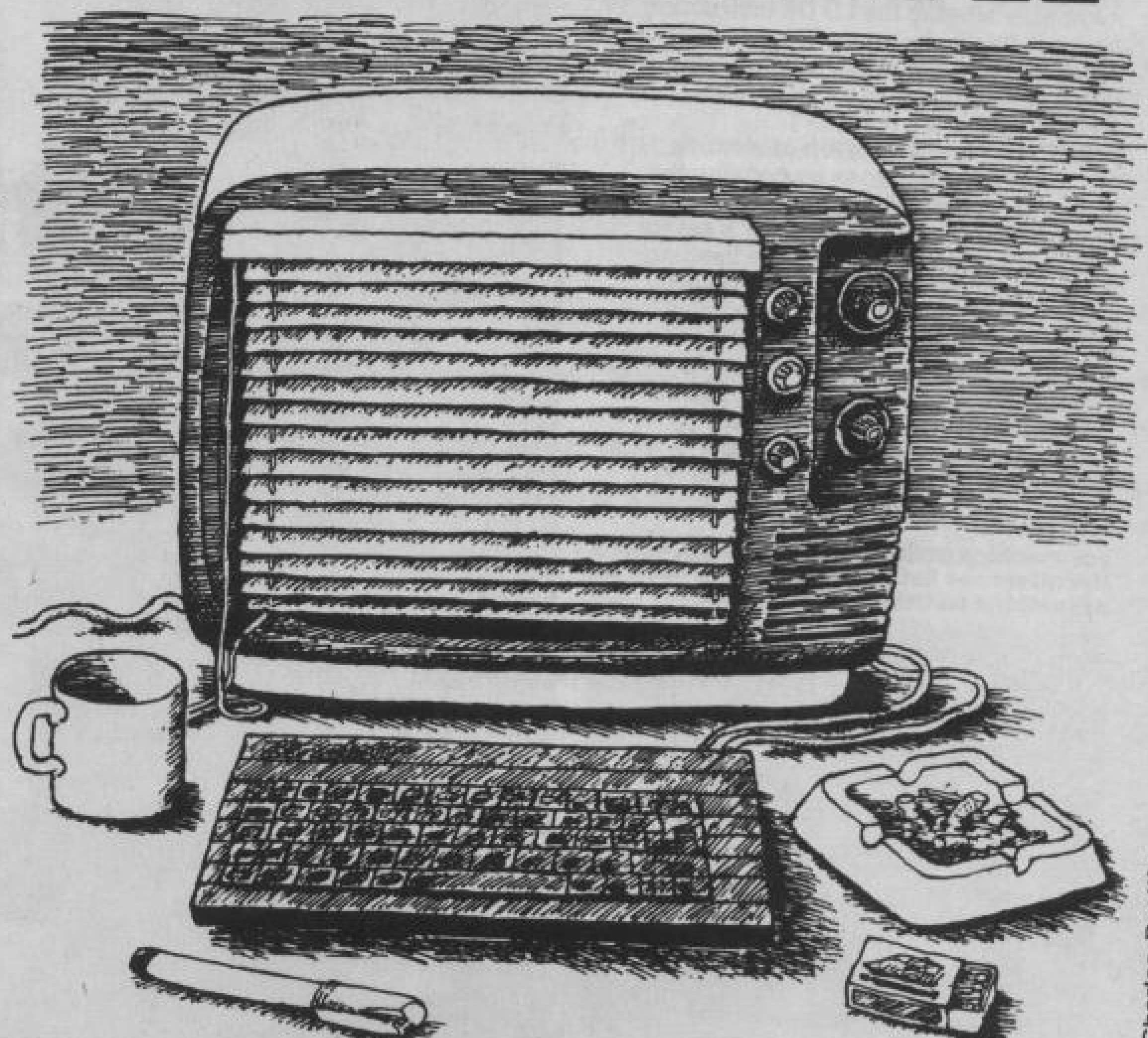


Illustration: Charles Peattie

Have you ever wondered what happens to your telly if you decide to go walkabout while you're in the middle of a spot of programming. Sod's law says that something always crops up right in the middle of what you're doing — nature calls, the cat dies, the telegram arrives to tell you that your premium bond's just come up. Well, if you've just won a hundred grand you're not going to worry too much about your TV but for the rest of us it's worth knowing what happens if the Speccy's left on too long untouched. Well, if you leave any image on the screen for a long time you may affect the phosphor in the TV tube and that can result in a faint image being burnt permanently into your screen.

So, how do you avoid it happening? Well, what you need is a program that turns the screen off if you don't do anything for a while. And that's exactly what this program, *AutoFade* does. If you don't touch a key for a certain period — you can choose any time lapse up to twenty minutes — the screen will go completely black. Well, all except for a single flashing white square that lets you know what's happened. The next time you press a key the screen will be restored to its previous state. The idea for the program was suggested to me by a *YS* reader who'd seen a similar routine for the Beeb — the ancient historians amongst you may remember the machine! As usual my filing system fell over and I lost the original letter,but thanks anyway whoever you may be.

INTERRUPT US!

You've probably guessed already that the program uses interrupts to do its stuff. And I use my interrupts so that they work regardless of what adds-ons are connected, including Interface 1. That's what makes the program not only genuinely useful but also a good illustration of how to handle Interrupt Mode 2 neatly.

The usual problems with IM2 type routines is that they don't work with non-Sinclair peripherals. That's because the byte that's read when the Z80 tries to get the vector address is not FF as normal but it can be any value. To take into account all the values from 0 to FF you have to construct a jump table that allows for all possibilities. And in spite of what you'll read in many Z80 manuals, bit 0 isn't zeroed when the vector is to be found. So, the interrupt routine has to lie at an address that has two bytes the same — I've used # FDFD. The I vector points to $FE00, which is a table of 257 bytes of $FD, allowing for all possibilities. Take a look at the Source Code and you'll see what I'm on about.

This program is available on Digi'T'ape

Data Loader

Get going on this short machine code loader program that allows you to set the delay before your screen blanks out. To disable it, do a RAND USR 64994 and re-enable it with RAND USR 64967. It uses under 1200 bytes and they're located so that the user defined graphics remain untouched.

```
   5 RESTORE
  10 CLEAR 64198
1000 FOR I=64967 TO 65023
1010 READ A: POKE I,A
1020 NEXT I
1030 FOR I=65281 TO 65365
1040 READ A: POKE I,A
1050 NEXT I
1060 INPUT "Delay in secs";S
1070 LET S=S*50: LET T=INT (S/256)
1080 POKE 65287,T: POKE 65286,S-256*T
1090 RANDOMIZE USR 64967
1100 PRINT "USR 64994 to switch off"
2000 DATA 33,0,254,6,0,243
2010 DATA 54,253,35,16,251,54
2020 DATA 253,62,254,237,71,237
2030 DATA 94,251,33,1,0,34
2040 DATA 251,253,201,237,86,201
2050 DATA 255,243,245,229,197,213
2060 DATA 237,91,251,253,205,1
2070 DATA 255,34,251,253,209,193
2080 DATA 225,241,251,201,2,0
2090 DATA 195,229,253
2100 DATA 122,179,40,50,33,232
2110 DATA 3,167,237,82,40,11
2120 DATA 235,35,253,203,1,110
2130 DATA 200,33,1,0,201,33
2140 DATA 0,88,17,199,250,1
2150 DATA 0,3,126,18,54,0
2160 DATA 35,19,11,120,177,32
2170 DATA 245,211,254,62,184,50
2180 DATA 255,90,33,0,0,201
2190 DATA 235,253,203,1,110,200
2200 DATA 33,199,250,17,0,88
2210 DATA 1,0,3,237,176,58
2220 DATA 72,92,230,56,15,15
2230 DATA 15,211,254,33,1,0,201
```

The Source

The easiest way of blanking the screen while saving its previous contents is not to save all 6K of screen data but just the attribute file of 768 bytes. You can then make the display file black by zeroing the attributes, leaving the display bit map well alone. The attributes are stored in the area SCRBUF.

The INIT routine sets up the vector table and the interrupt mode. It also sets TIMER to 1 — this normally increases by 1 every 50th of a second until it reaches its maximum value, when the screen is blanked, then it's set to 0 until a key is pressed. The DISFAD routine turns off the fader by going back to the usual interrupt mode 1.

INTROU is my version of the interrupt routine which normally just scans the keyboard. It starts by calling the ROM interrupt routine in either the Basic ROM or Interface 1, then saves the registers before calling the extra routine MYINT. It then restores the registers and returns in a similar way to the ROM routine. The JP INTROU must always lie at #FDFD and it must immediately be followed by the 257 byte vector table at #FE00. All these requirements do mean that relocating the program to another memory address isn't just a simple matter of changing the ORG directive. It's a job that should only be attempted by the brave — or foolhardy!

MYINT is the special interrupt routine that controls the screen. It starts by testing for a TIMER value of 0, which means that the screen's been blanked. Now assuming that it hasn't, it sees if

FADE AWAY

the count has reached the magic number — altering the LD DE instruction changes the period of the delay in 50th seconds. If it's not timed out, the timer is incremented unless a key's been pressed, when it's reset to 1.

BLANK handles the job of clearing the screen which it does by copying the attributes to the buffer then setting them all to 0 (black). The border's set to black as well and you'll find the flashing cursor at the bottom right position on the screen. It returns with a zero value on HL for TIMER.

TISBLA works when the screen's already blank and tests to see if you've pressed a key. If you have, the old screen attributes are restored, the correct border colour is set and the TIMER is set to 1.

For machine code megabrains only, here's the reference listing of the source code as assembled on HiSoft's assembler.

```
Pass 1 errors: 00

                ;Auto Fade routine
                ;(c) A.Pennell 1985
0001            FLAGS  EQU  1
FAC7                   ORG  64199
                ;screen buffer
FAC7            SCRBUF DEFS 768
                ;
                ;initialise routine
FDC7 2100FE     INIT   LD   HL,#FE00
FDCA 0600              LD   B,0
FDCC F3                DI
                ;set up int table
FDCD 36FD       INITLP LD   (HL),#FD
FDCF 23                INC  HL
FDD0 10FB              DJNZ INITLP
FDD2 36FD              LD   (HL),#FD
FDD4 3EFE              LD   A,#FE
FDD6 ED47              LD   I,A
FDD8 ED5E              IM   2
FDDA FB                EI
FDDB 210100            LD   HL,1
FDDE 22FBFD            LD   (TIMER),HL
FDE1 C9                RET
                ;disable fader
FDE2 ED56       DISFAD IM   1
FDE4 C9                RET
                ;the interrupt handler
FDE5 FF         INTROU RST  #38  ;call
                rom
FDE6 F3                DI
FDE7 F5                PUSH AF
FDE8 E5                PUSH HL
FDE9 C5                PUSH BC
FDEA D5                PUSH DE
FDEB ED5BFBFD          LD   DE,(TIMER)
FDEF CD01FF            CALL MYINT
FDF2 22FBFD            LD   (TIMER),HL
FDF5 D1                POP  DE
FDF6 C1                POP  BC
FDF7 E1                POP  HL
FDF8 F1                POP  AF
FDF9 FB                EI
FDFA C9                RET
FDFB 0100       TIMER  DEFW 1
                ;this must be at #FDFD
FDFD C3E5FD            JP   INTROU
                ;and this is #FE00
FE00            LFE00  DEFS 257

                ;special interrupt
                routine
FF01 7A         MYINT  LD   A,D
FF02 B3                OR   E
FF03 2832              JR   Z,TISBLA ;
                if already off
FF05 21E803            LD   HL,20*50 ;
                I like 20 secs
FF08 A7                AND  A
FF09 ED52              SBC  HL,DE
FF0B 280B              JR   Z,BLANK ;if
                timed out
FF0D EB                EX   DE,HL
FF0E 23                INC  HL
FF0F FDCB016E          BIT  5,(IY+FLAGS)
FF13 C8                RET  Z ;if no key
                ;a key was pressed so
                clear counter
FF14 210100            LD   HL,1
FF17 C9                RET

                ;its timed out
FF18 210058     BLANK  LD   HL,#5800
FF1B 11C7FA            LD   DE,SCRBUF
FF1E 010003            LD   BC,768
FF21 7E         SVLP   LD   A,(HL)
FF22 12                LD   (DE),A ;
                copy to buffer
FF23 3600              LD   (HL),0 ;
                clear to black
FF25 23                INC  HL
FF26 13                INC  DE
FF27 0B                DEC  BC
FF28 78                LD   A,B
FF29 B1                OR   C
FF2A 20F5              JR   NZ,SVLP
FF2C D3FE              OUT  (#FE),A ;
                black border
FF2E 3EB8              LD   A,%10111000
FF30 32FF5A            LD   (#5AFF),A ;
                cursor
FF33 210000            LD   HL,0
FF36 C9                RET

                ;im blank so see if key
FF37 EB         TISBLA EX   DE,HL
FF38 FDCB016E          BIT  5,(IY+FLAGS)
FF3C C8                RET  Z ;if no key
                ;restore display
FF3D 21C7FA            LD   HL,SCRBUF
FF40 110058            LD   DE,#5800
FF43 010003            LD   BC,768
FF46 EDB0              LDIR
FF48 3A485C            LD   A,(23624)
FF4B E638              AND  #38
FF4D 0F                RRCA
FF4E 0F                RRCA
FF4F 0F                RRCA
FF50 D3FE              OUT  (#FE),A
FF52 210100            LD   HL,1
FF55 C9                RET

Pass 2 errors: 00

Table used:   160  from   284
```

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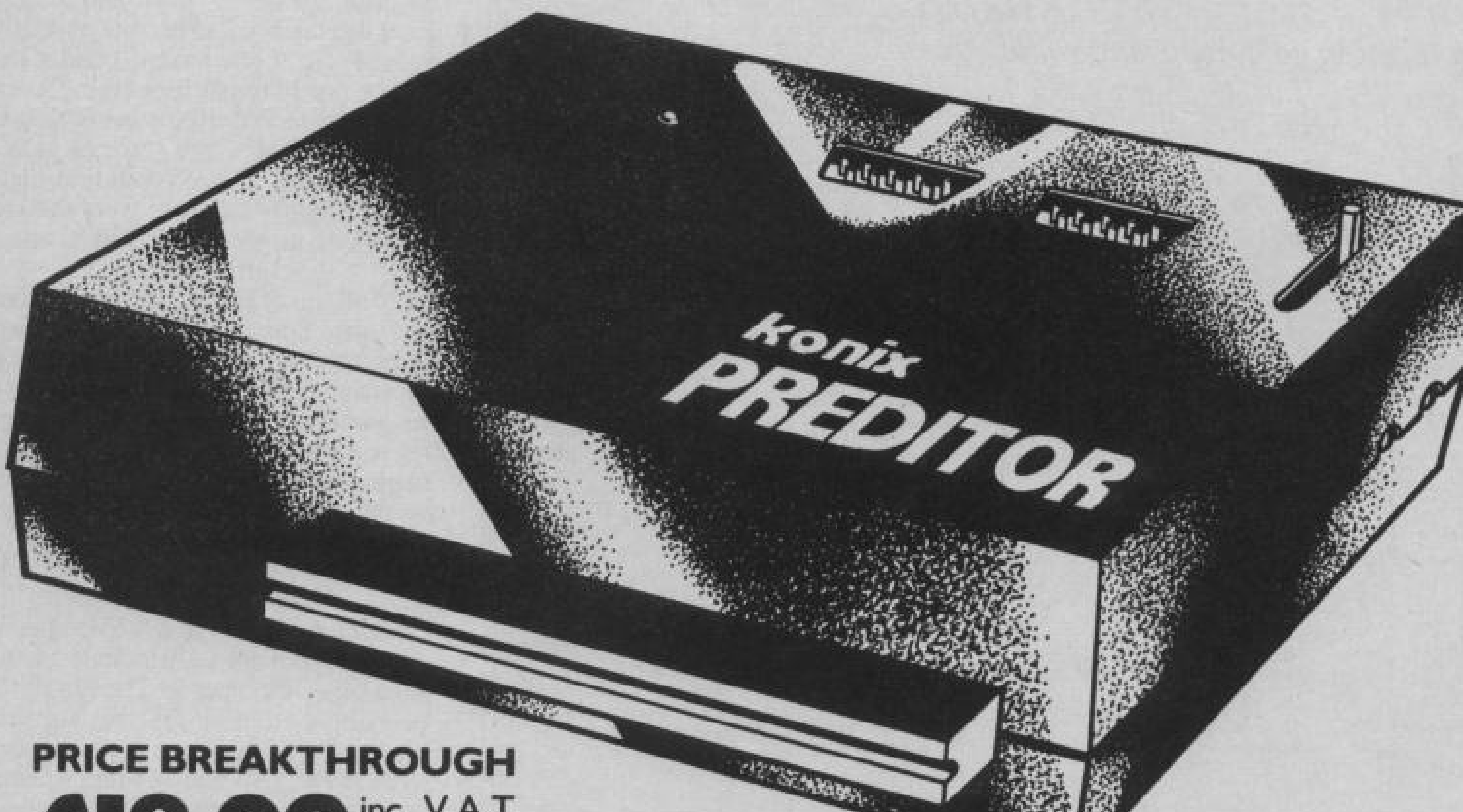
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LORD OF THE RINGS

DEAD RINGER

Many moons ago in a far away land, a small band of fellows embarked on a task that no-one but them believed possible. How, the doubters said, could they turn* Lord Of The Rings *into an adventure game? Night and day they toiled together and at last they triumphed. Now the* Grim Reaper *considers whether their game really does run rings round other adventures.

SETTING OUT

'You ought to go quietly, and you ought to go soon,' said Gandalf.

```
You are Frodo.

You are in a comfortable burrow
with a round window and a green
door to the east. Near the door is a
large heavy wooden chest. Against
one wall is a kitchen dresser. In
the kitchen dresser are a drawer
and a cupboard. Screwed to the wall
is a noticeboard. Covering the
noticeboard is a group of
photographs. Pinned over the group
of photographs is a note. You can
see Sam and Pippin.
>OPEN THE CHEST AND THE DR
AWER AND THE CUPBOARD.
  You open the large heavy wooden
  chest.
  In the large heavy wooden chest
  are a length of strong rope, 3
  canvas backpacks.
  Pippin waits.
  Sam waits.

  You open the drawer.
  In the drawer are a map, a deer-
  skin pouch, an old wooden pipe, a
  new pipe, a long elaborately carved
  pipe and a matchbox. In the deer-
  skin pouch is some pipeweed.
  Pippin waits.
  Sam waits.

  You open the cupboard.
  In the cupboard are some food and a
  bottle. In the bottle is some wine.
  Pippin waits.
  Sam waits.
>WEAR BACKPACK,TAKE FOOD.
  You put on the canvas backpack.
  Pippin waits.
  Sam waits.

  You take the food.
```

Frodo is the keeper of the ring and the main character in the game. He and his friends must prevent the ring from falling into the hands of the evil Lord Sauron otherwise the Kingdom of Middle Earth will be lost to the forces of Darkness forever.

"All Hobbits had originally lived in holes in the ground, or so they believed and in such dwellings they still felt most at home."

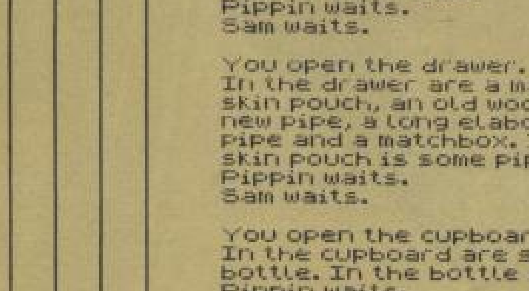
The note's from Gandalf the Wizard letting you know that he'll see you in Rivendell — so now you know the direction you're heading in.

Sam, Pippin and Merry are all faithful companions of Frodo. If you want you can be any one of these characters or all of them but be warned, it'll slow the game down considerably.

If you're one of the little people even the smallest hills can be a cumbersome climb — tell Sam to take the rope as it'll come in useful later.

Government Health Warning — smoking pipeweed can be Hobbit forming.

Go East Young Hobbit. The map in the book tells you the direction that Rivendell lies. Bear in mind though, that the most direct route is not always the quickest.



Pretty hip these hobbits. Their idea of a comfortable burrow is obviously Italian influenced and ultra modern. What's that? You think it could just be that the graphics are a bit on the blocky side and nowhere near as atmospheric as the text. Well, p'raps you're right...

Prepare to go on a quest. You will be away a long time and you will face many dangers. You will travel the length and breadth of the land in pursuit of your final goal and many times you will lose both your way and your will to continue. You will meet many tall, dark, not at all handsome strangers and they will kill you. Your quest is as perilous as the one that Frodo the Hobbit embarked on when he travelled with his companions to Mount Doom to destroy the Evil Lord Sauron's ring. It *is* that quest...

Even if you haven't read *Lord Of The Rings* you'll know what an enormous book it is. Maybe that's one of the reasons you haven't got round to it yet. And when you consider the limitations of the Speccy's memory you can appreciate what a formidable task Melbourne House has taken on with its new adventure and what an amazing job it's made of it.

Lord Of The Rings, the game, follows the plot of the first book in Tolkien's trilogy, *The Fellowship Of The Rings*, pretty accurately. Not only that but it also manages to capture the rich atmosphere of the book — not that there can be a real substitute for sitting down and reading it.

Luckily, the book comes as part of the package 'cos if you haven't read it you're in for a pretty tough time trying to crack the adventure. Your best bet is to make a start on the beginner's game on side two of the cassette. There you'll find that the map is slightly different from the main game as it's only meant as an introduction.

Talking of maps, this one's a real Ordnance Survey job but it's well worth taking care over if you want to find your way around. Oh, and don't forget to save the game at strategic positions — you'll find you get killed fairly frequently at the beginning. The main game is split into two parts so you'll have to save the game when you complete the first part if you want to take some of the objects you've collected with you.

Lord Of The Rings is a true adventure — the graphics are only included to jazz it up a bit — the ones in The Hobbit are probably better. No, the big attraction with *Lord Of The Rings* is it's like the TV Times (*or* YS? *Ed*) — there's just so much in it.

You can choose to play the part of any one of the four main characters in the game, Frodo, Sam, Pippin or Merry. You can even be all four if you like though this tends to slow things down somewhat.

The command interpreter is one of the most sophisticated I've ever seen on the Speccy. You can almost talk to it in English — Inglish anyway. My only real criticism of the game is that you have to reload the game each time you're killed but then again you can't have everything with a game this size.

All in all, the sophistication of the program and the subject matter combine to make *Lord Of The Rings* one of the all time great adventures and it deserves to be as successful as *The Hobbit*.



FROM MAGGOT'S FARM TO THE BRANDYWINE

To give you some idea of the richness of Lord of the Rings, *here's an excerpt from the early stages of the game. The events here take place in just five locations so you can imagine how much more there is to explore. Welcome to the world of The Shire*





```
You are Frodo.

You are in a farmyard containing a
barn, sheds and stables. Just off to
the north is a neat farmhouse
surrounded by a garden.
You can go west, north, south and
east.
Pippin enters.
Sam enters.
3 wolvish-looking dogs enter
barking ferociously.
You wait.
Pippin waits.
Sam waits.
Farmer Maggot enters.
Farmer Maggot says " Hello and who
might you be? ".

>SAY FARMER MAGGOT "FRODO.

You talk to Farmer Maggot.
Pippin waits.
Sam waits.
Farmer Maggot replies " That
sounds like a good hobbit name.
Come up to the house. ".
The dogs slink off to the barn.
Farmer Maggot goes north.

>FOLLOW FARMER MAGGOT.

You follow Farmer Maggot.
You are in a farmer's kitchen, with a
wide fireplace, and plenty of
seating. You can see Farmer
Maggot, Mrs Maggot and a wooden
table.
You see a wooden table hewn from
solid logs.
Pippin waits.
Sam waits.
" You look as though a meal would
do you good. " Says Mrs Maggot as
she puts a meal on a wooden table.
Farmer Maggot waits.

>SAY MRS MAGGOT "THANK YOU

You talk to Mrs Maggot.
Pippin waits.
Sam waits.
Mrs Maggot replies " Your welcome.
".
Farmer Maggot waits.

>EAT.

You eat some of the meal.
Pippin eats some of the meal.
Sam says " Looks very nice that
does ".
Sam eats some of the meal.
Mrs Maggot eats some of the meal.
Farmer Maggot eats some of the
meal.
The meal is now finished.
Farmer Maggot says " Been a few
queer fellows about recently. All in
black and asking after Baggins.
They went up the east road when I
said there weren't no Baggins here.
".
Farmer Maggot waits.
Farmer Maggot says " Go east and
south. Take the ferry and keep off
the east road. It's too dangerous. "

>SE.
>S.

You go south.
You are at a wooden landing-stage
on the east bank of the Brandywine
river. Roads lead to the north and
south. On the landing-stage is a
large iron winch. On the large iron
winch is an iron handle. You can see
the ferry. On the ferry is a large
iron winch. On the large iron winch
is an iron handle.
You can go north. Other possible
exits are east through the yellow
door.
Pippin enters.
Sam enters.

>E.
>WAIT.

You go east.
You are in a comfortably furnished
cottage with round windows. You
can see Merry and a table. On the
table is a welcome meal.
Possible exits are west through
the yellow door and east through
the yellow door.
Merry waits.
Pippin enters.
Sam enters.

>N.

You go north.
You are at the eastern bank. You
can see 3 Black Riders mounted on
tall black horses.
You can go east, west, south and
north.
Merry enters.
Pippin enters.
Sam enters.
```

You're never very far from Tolkien's book when you're playing *Lord Of The Rings*. Even the screen mimics the page layout of a book. You can only read one page at a time but you can see which characters are in the vicinity as their heads appear on the previous 'page'.

Oh yawn — this is the boring bit. Your companions are always just one step behind so you have to hang around waiting for them to catch up after each move.

Hang about, hang about, hang about. That's right, wait three times and Maggot will make his move and call the dogs off.

Hobbits have a habit of sticking together so don't be coy — identify yourself and you'll find a friend in Farmer Maggot.

Take a look at the table at this point and Mrs Maggot may take the hint. No hobbit's going to turn down the chance of a decent meal! And they won't say no to a drink or smoke either.

Yum, tuck in. All this repetition's makes some bits of the game sound like a 'We Learn To Read' book but you'll soon get used to it.

Good advice from Maggot — you'd do well to heed it. The Black Riders roam the east-west road in search of the Ring. You should be okay provided you don't stay on this road for too long.

Your destiny — and part two of *Lord Of The Rings* — lies across the Brandywine River.

"Merry went to the door: 'What about supper and beer in the throat?'"

Escaping from the clutches of the Black Riders is the hardest part of the game. Once you've got them breathing down your neck, you're almost always a gonner. If you choose to be more than one character at the beginning of the game, you at least have a chance of saving someone's skin.

Not all hobbits live in burrows. *"The Maggots, and Puddifoots of Stock, and most of the inhabitants of the Marsh, were house-dwellers; and his farm was stoutly built of brick and had a high wall all round it."*

"Suddenly as they drew nearer a terrific baying and barking broke out, and a loud voice was heard shouting: 'Grip! Fang! Wolf! Come on, lads!'"

Grr, here's a situation that's gonna hound you. One false move and you're going to end up as the dogs' dinner.

The great thing about the game is that it doesn't dump the atmosphere for the sake of the action. The interior of the Maggots' farmhouse captures perfectly the homeliness of the hobbits' dwellings and the rural setting of the Shire. We are in a world as rich as Tolkien's original.

Shame the game wasn't proof read but then who are we to go on about others' spilling.

One of the game's most frustrating responses is Don't Be Silly — frustrating because some of the things you'll want to do just don't seem silly at all.

And now for the bad news. It seems the Black Riders are on to you. Maggot will have put them off the scent for only a short while.

"Sam was the only member of the party who had not been over the river before. He had a strange feeling as the slow gurgling stream slipped by: his old life lay behind in the mists, dark adventure lay in front."

OBITUARY

It is with great sadness that we announce the death of one of *YS*'s most respected contributors. A valued member of the skeleton staff at Castle Rathbone, he unstintingly worked his fingers to the bone writing the adventure pages each month. But now he's passed away. Kicked the bucket. Popped his clogs. He'll scythe no more. The Grim Reaper has died the Death. Grim or what?

Well no, it's not actually 'cos from next month the new-look adventure section will be hosted by none other than Mike Gerrard. Book author, adventure programmer (with his brother Pete), newspaper and magazine columnist, dragonslayer, husband and father of forty-two children, Mike Gerrard, "This is your . . ." Not now Eamonn. So, if you have a problem or a clue you want to share, start scribbling to Mike now.

Death was last heard of spinning in his grave...



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THE WORM IN PARADISE

Level 9 have spent 12 months enhancing their adventure system with world-beating features for the coming years and **THE WORM IN PARADISE** is the first game to use this new system.

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— Commodore User

"An excellent adventure, atmospheric, devious and full of the ingredients that have established Level 9 as probably the best English adventure writing house to-date." — Computer Trade Weekly

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"I will describe this game in 3 words: Sheer unadulterated brilliance. Rarely have I played such a wonderful, enthralling adventure ... The puzzles are entertaining, tough and logical. The storyline is immaculate, in its originality, concept, and application. This game incorporates Level 9's new parser which has to be used to be believed. Complex, and multiple input commands are understood, and the game is extremely user-friendly. In short, mortgage your computer, and get a copy. Immediately!"
— The Adventurers Club Dossier

An AMTIX ACCOLADE. "The game is very good in terms of interaction ... fascinatingly original and clever. OVERALL 91%
— Amtix

"probably the company's best adventure so far" — Microscope

"YOUR SINCLAIR MEGAGAME 9/10"
— Your Sinclair

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YS/4/86

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SCRIPT: MAMO, ART: WILLIAM SIMPSON, LETTERING: ANNIE HALFACREE.


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NOT NOW!
WE HAVE TO LEAVE, BEFORE ANOTHER PATROL FINDS US. WE'LL MAKE IT BACK LATER.
... SCANNERS INDICATE HUMANS IN THIS BUILDING...
ROBODROIDS?!!
DAMN!
SUB-BASEMENT
ROGAN!!
LOOK, I'VE FOUND A SPECTRUM.
FORGET YOUR MACHINE, WE'VE GOT PROBLEMS...
WHAT DID AAAGGHH.!
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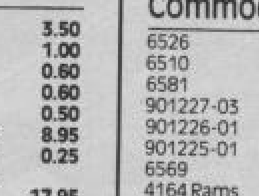
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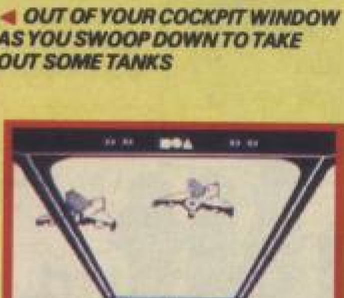
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HARD FACTS

Are you being harrassed by your hardware? In need of advice? *Steve Adams* is your hardware handyman.

I recently bought a Spectrum and Timex printer but I can't figure out how to LIST my programs or PRINT to the printer channel. Can you help?
Tariq Khan, Bradford, West Yorkshire

All you've gotta do to list to the printer is use LLIST instead of LIST. To print to the printer use PRINT#3; "This is what you print" in exactly the same way as you would PRINT statements.

Where can I get a Spectrum case to put over my ageing 48K Spectrum. My friend got one for £20 but he can't remember where from. Do you know?
Terry Powell, Hove, Sussex

Lucky ol' friend eh? The offer was actually made by Sinclair. It costs £20 for a Spectrum+ kit that'll turn your Spectrum into a Spectrum+. You'd be best to write to Sinclair at Milton Hall, Cambridge.

I bought two Spectrums that I upgraded to 48K but horror of horrors, they both broke after a couple of days and I had to send them to England to be repaired. This whole escapade has cost me £40 and a lot of bother. Can I trust Sinclair Research and its branches around Europe for future purchases of equipment?
Rolf Agren, Sweden

Well, to be honest Rolf I'm afraid once you've opened your Spectrum to upgrade it any guarantee becomes null and void so you can't expect Sinclair to pay for it. Take note all you others before upgrading your machines yourselves.

I've got a Wafadrive (stop laughing) and I'd like some facility to switch a port out making the Wafadrives effectively disconnected without having to keep pulling the plug in and out. Do I need something like a Currah MicroSlot?
Dave Marriott, Nottingham

No you don't need a Currah MicroSlot. A simple POKE should disable the Wafadrive — POKE 23734,167 enables it and POKE 23734,0 disables it.

My EP44 printer works fine with LPRINT and LLIST through Interface 1 but COPY does not work. Do you know why and also how do I get rid of the double line feed problem?
R Shepherd, Australia

As far as I know there is no graphics facility on your particular printer, so no COPY command can be used. You can probably put the double line feed problem down to two reasons. One, the line feed switch at the top right hand side is set to $1\frac{1}{2}$ not 1 or two, the CR+LF mode has been selected where the program only needs it set to CR.

Ummm . . . er do you mind awfully if I ask just a couple of questions. Well, five to be precise! 1. How do you load machine code without destroying the screen with the LOAD message? 2. Is there a POKE to control the flashing speed of a character? 3. Can you stop the cursor flashing? 4. Is there a decoder for morse available? and 5. Is there also a published list of the Spectrum's system variables and how can I put them to use?
Frank Reeders, Netherlands

Let's start with the easy ones first. You can't change the flashing of a character as it is controlled by the ULA. You can stop the cursor flashing by POKEing 23624, PEEK 23624=128 but this'll make the bottom lines flash instead. As for the morse decoder, *Delving Deeper With Your ZX Spectrum* by Dilwyn Jones, published by Interface Publications should be able to help you out. Otherwise try contacting the Sinclair Radio Amateurs Group at 3 Red House Lane, Leiston, Suffolk. At last the final answer — and the longest. You can load machine code by using the small machine code routine below.

```
  10  DATA 62,255,55,221,
33,00,64,17,60,27,201,205
,00,91,205,198,04,251,201
,205,00,91,205,86,05,251,
201
  20  REM RANDOMIZE USR 2
3307 for SAVE
  30  REM RANDOMIZE USR 2
3315 for LOAD
  40 REM  length is 27 by
tes
  50 FOR x=23296  TO 2329
6+26: READ A: POKE X,A: N
EXT X
```

It'll save or load screen memory including the colour bytes to tape without waiting or displaying the cassette messages. Neat eh?

Heh, I'm not even going to ask a question! Having read your reply to B Mutton about the HR5 pound sign, I feel an easier solution would be to change the English character set by setting SW1-7 and SW1-8 to off. This'll give a pound sign instead of a hash. Then you can use the hash sign instead of the pound sign in *Tasword* — it saves using the character definition. How's that?
Tony Dury, Portsmouth

Thanks a lot Tony that's great. I'd also like to thank our next reader who came up with the same suggestion.

I need your advice. The symbol/shift, M,N and B keys don't work on my Spectrum. Can I fix it myself and how?
Alexander Morrison, Isle Of Lewis

What you need is a new membrane to fit under the keyboard as it sounds like some of your ink wires are broken. It'll be cheaper if you get it done by a local repair outfit. Try TV Services of Cambridge, Chesterton Mill, Cambridge CB4 3NP if you're still stuck.

YOUR SINCLAIR
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My HR5 Centronics printer skips about four or five blank lines about every half page — can you suggest a POKE to cure this?
Steven Brown, Belfast

No problem. You're getting this 'cos of the perforation skip function on the printer. All you've got to do is turn off by setting SW1-3 to OFF. It's designed to skip over the perforation in fan folded paper.

Being a bit of a DIY freak I decided to build the Interface 1 joystick interface (*Your Spectrum*, issue 5) for my son. It works fine except when the joystick is connected I cannot use the symbol/shift and CAPS shift keys.
John Holloway, Mid- Glamorgan

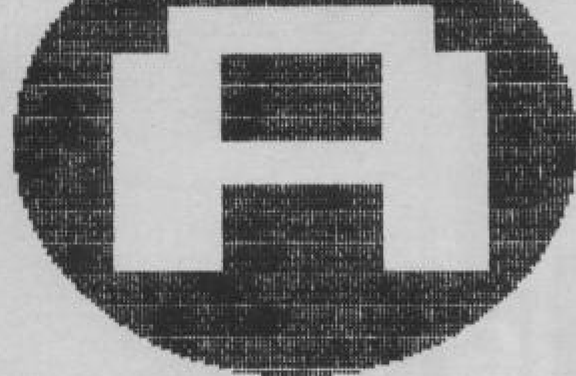
Sounds to me that you're overloading the data lines DO and D1 of the keyboard port. Try inserting 1K resistors in the data lines to the interface to reduce the load.

I'd like to be able to use the full 42 columns with my GP50S printer but the software only gives 32 columns. How do I print the extra?
David, Leeds

The channel used by all printers is number 3 and PRINT#3; "this is here" will print to the printer. It's possible that by looking at the channel data for the routine locations you may learn some more. This'll be 15 bytes above the location indicated by the number in the CHANS system variable. It's a two byte number and gives the output routine for the printer.

Help, I'm desperate! I've a Shinwa CPA80 printer operating through the Kempston E Interface but I'm at a complete loss as to how I set up the printer for *Tasword Two*.
RP Brotherton, Evesham, Worcestershire

You really shouldn't need to set up the interface as the E interface is set up on power up and the *Tasword Two* program only needs to print through channel 3 — the print channel. You won't need interface codes for normal text but have a shifty at your interface handbook to suss out how to send control codes. If it requires codes to be sent before and after the control characters then enter these into the interface 1 and 2 positions on the printer set-up part of the program.



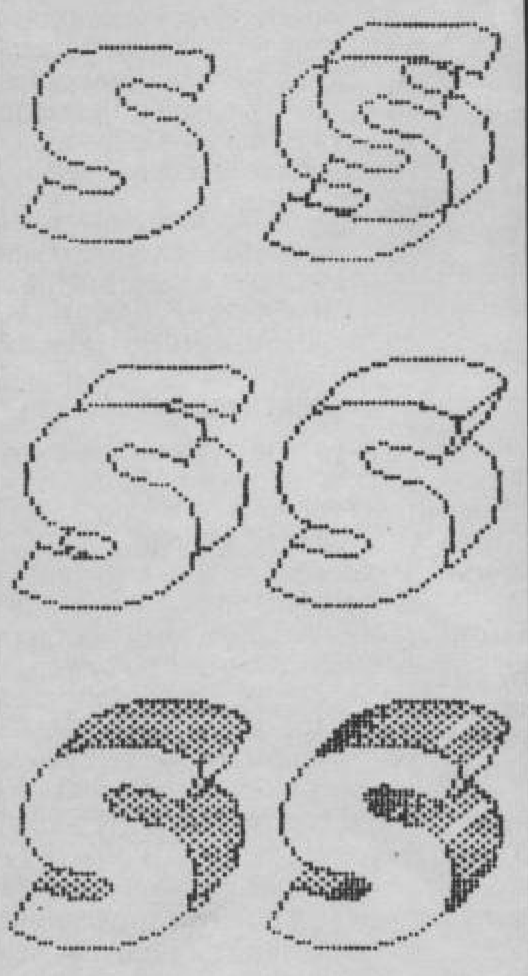
ARTFUL DODGES

Art's not just for galleries. It's all around us, in shops, in advertisements, in our homes and yes, it's in *YS* too! That's why our very own Art Ed, *Martin Dixon* has joined forces with *Neil Stradwick* (who created the pictures in *Art Studio*'s manual) to show you how easy it's done. All you need is a copy of Rainbird's *Art Studio* ...

Art packages used to be for artists. If you didn't have talent then there was no point touching them. Now *Art Studio*'s changed all that.

You can create artistic masterpieces if you're that way inclined but it's just as easy to turn out party invitations, letterheads, bits'n'pieces for a fanzine and a lot more besides. And it's all so much fun. You'll find that you can spend as many hours just 'playing' with the package as you will with any game. Take a letter, resize it, stretch it, stick a drop shadow behind it, try it in 3D — the possibilities are endless. Plus, it's all so easy. The program makes full use of windows and drop-down menus so you don't have to keep referring to the manual. Just click the options you want, try them out and if they don't work, undo them.

Take a look at the full review of the *Art Studio* in *Your Sinclair* issue 2 for a run-down of all the options on offer in the program. For all those of you who were convinced by the review or last month's special offer, here's a whole host of hints'n'tips — simple ideas that you might not have thought of but which you can easily try out and adapt to your own ends.



S BENDS

It's easy to see here how something as simple as the letter S can be altered and adapted. Just by experimenting you can achieve some remarkable effects. It's very easy to make the letter look solid by shifting one image on top of another and using the textured fill for a really 3D effect. And don't just stick with straight drop shadows behind your letters but squash them to achieve different effects. You could, for example, change the shadow behind the S into the picture of a snake.

To create your own typeface, copy a complete alphabet from a book onto a piece of clear acetate and then stick it to the screen and trace round the letters with the cursor. It's much better to make your letters large and then reduce them later — if you do it the other way round you may lose some of the resolution. It's also a good idea to define your letters as an outline rather than solid. It's must easier to fill than unfill later on.

Tip ***To create the illusion of depth in your pictures, try squashing an image or using a black background.***

To change the width of a word, 'Your' for example, just define a window round the original letters and clear and rescale. If you need to tidy up after the operation, magnify and wipe out the offending pixels. You'll find that the more solid an image, the easier it is to rescale.

Tip ***If you want to reduce an image proportional to the original, set the grid to on and then count the number of squares that each should occupy in proportion to the other. The grid's also a must if you're working in colour. You can adjust the colour of your picture by using the window function to move the image slightly so its position shifts into the correct character square.***

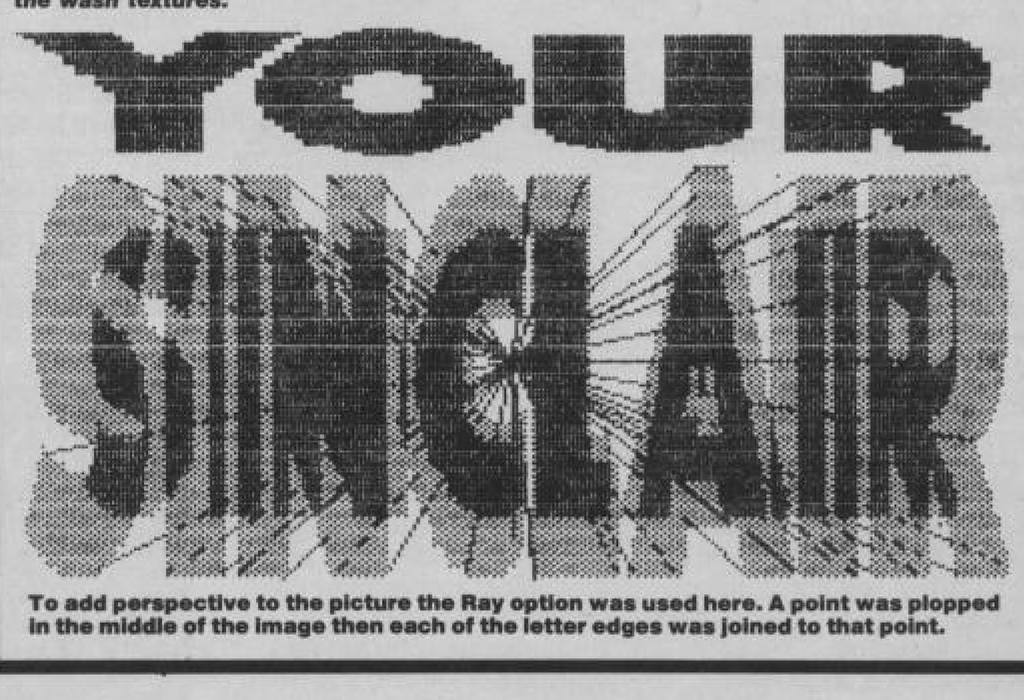
To create the effect on the word 'Sinclair' below, define a window round the original word in black, Clear and Rescale, then draw a big box over the image. Set Merge and Over both to on, and now go to Wash Texture, choose the one you want and click it. Bingo.

Tip ***Build up your images by drawing the black first, then the half-tones and finally the wash textures.***

MAKING HEADLINES

To give you some idea of Art Studio*'s versatility when it comes to adapting typefaces and letters, we've taken the* Your Sinclair *logo and had a play around with it. Doesn't look bad, does it?*

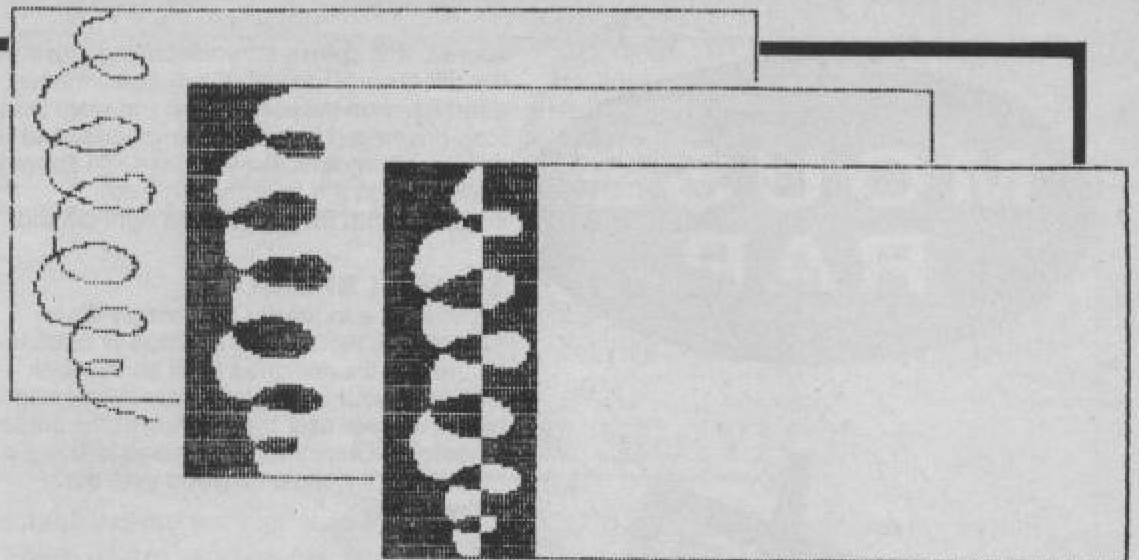




To add perspective to the picture the Ray option was used here. A point was plopped in the middle of the image then each of the letter edges was joined to that point.

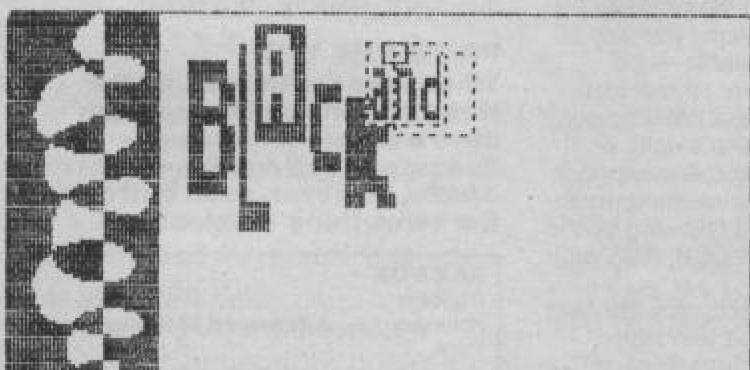
ARTY PARTY

If only the Art Studio had been around in the Sixties. You don't have to be a friend of Mary Quant to know just what a trendy party this would've been! But there's also a very obvious reason for designing in black and white if you intend to print out the finished product. With a bit of imagination this shouldn't restrict you at all — you never know, the monochrome look may be ready for a revival.



I drew the shape of the invitation with the Rectangle option. Then using the smallest brush, I added the squiggle. Be careful when you're using the small brushes to go slowly or you can miss out pixels by travelling at top whack. If that happens the solid fill will run wild over the whole screen. The mirror image effect was achieved by defining a window around the shape and then inverting it.

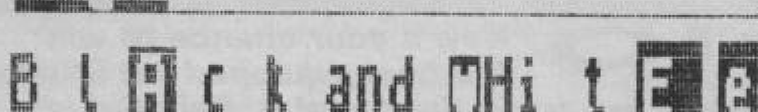
Tip ***Remember the Undo option which clears any cock-ups since you last clicked.***







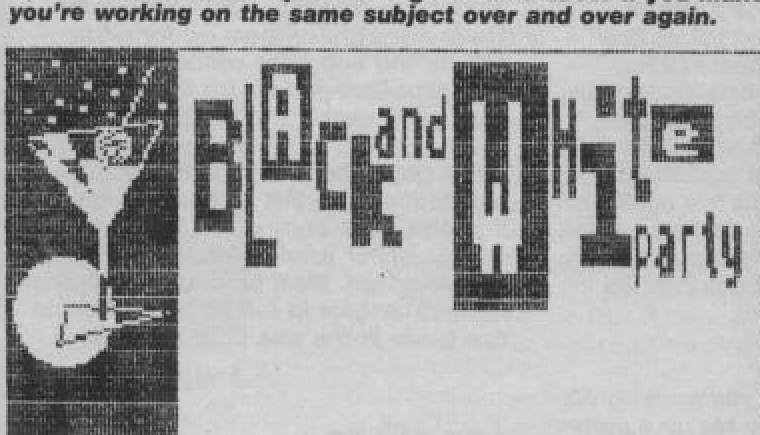
Oh yes, the cocktail glass is much better. I decided I didn't really go for the mirrored border after all. But that's the good thing about *Art Studio* — you can develop your ideas as you go along and alter and adapt them at will. The glass is also a good example of how to use the Over facility. It was drawn with the Continuous Line option, clicking the mouse or joystick when you want to change direction. I like to have the Elastic option on so that I can see where the line's going. I drew the circle at the bottom last, solid filled it, defined a window round it, Cut and Pasted it into position with the Over option on and it automatically reversed out. Neat eh?



Write out any words you want outside the working area. Here I used triple height and normal width and made sure that I left plenty of space around each letter. Then I could easily define windows round the individual letters.

To make fine adjustments to the position of a letter, define a window round it, then choose the Cut, Clear and Paste option. That'll give you another window the same size as the original that you can overlay onto it and shift by just one or two pixels.

Tip ***The Last Window option is a great time saver if you make a mistake or you're working on the same subject over and over again.***



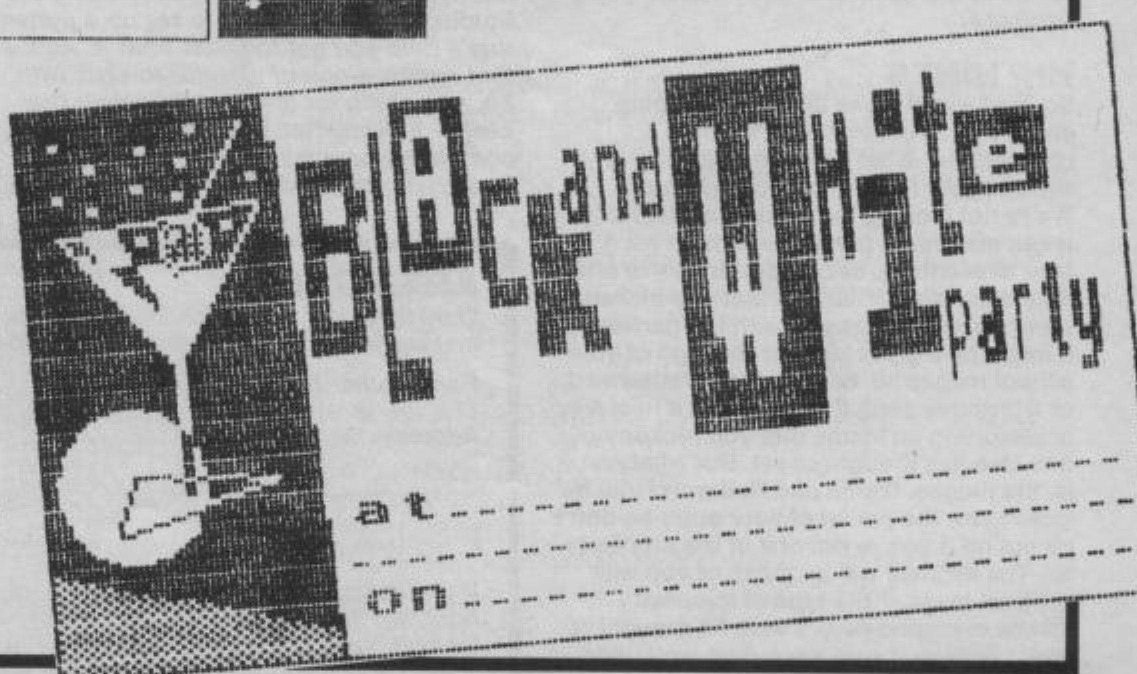


Now it's starting to look more like an invitation. The glass was reversed out completely by choosing the Invert window and rescaling it in the right area. The problem with rescaling is distortion. Sometimes you can use it to your advantage but if you're not keen, use one of the Magnify options and tidy up the area pixel by pixel — that's how the bubbles were added.

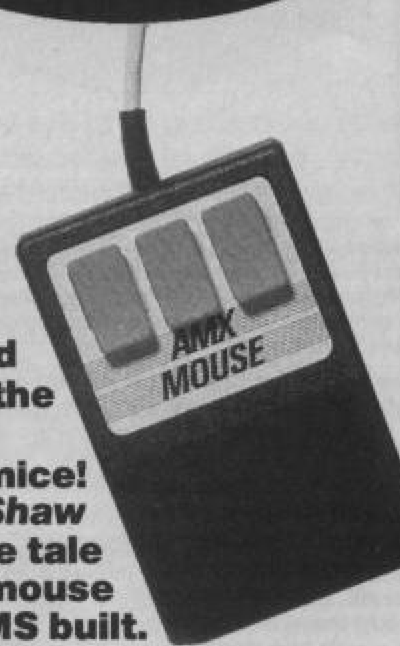
Tip ***Leave plenty of space around the area you're working on so that you can try out ideas before moving them into position. The alternative is to create separate ideas files but this is more time consuming.***

I didn't rate all that black space beneath the glass so I bunged in the textured fill — remember to draw a line around the area you want filled first. *Art Studio* really scores on time saving. I only drew one dotted line in the border and then moved that same line into position using the Cut and Paste option as opposed to Cut, Clear and Paste. And now we're ready to print out — *Art Studio* lets you do dumps up to five times the original size. But be warned, it may take you a while to set up your printer unless it's just a ZX printer. We found this the hardest and least user-friendly aspects of the whole package.

Tip ***Make sure you send invitations to your parties to Everyone at Your Sinclair, 14 Rathbone Place....***



MOUSE RAP



At last, people have stopped taking the mickey out of mice! *Peter Shaw* tells the tale of the mouse that AMS built.

Two years ago, had anyone asked you what a mouse was, you'd have immediately thought of a cute white hairy thing that answers to the name of Fred. Now, of course, with software trends having moved in the direction of icons and pull-down menus, a mouse is an essential tool if you want these icon-driven systems to work properly. And now that programs like this have just started appearing on the Spectrum, it's not surprising that the mouse was right behind.

SQUEAK SPEAK

So, what is a mouse? Quite simply it's an inverted trackerball with a button or buttons on the top. It's designed to sit on the desk alongside your computer and movement of the mouse will alter the position of the cursor on-screen. Once you've got used to using a mouse you'll wonder how you ever did without one.

MOUSING AROUND

The AMX mouse comes with a copy of *AMX Art*, a useful graphics package, a comprehensive instruction manual and a Spectrum mouse interface — you need this so it can talk to your Speccy. The speed of the mouse is dependent on the package it's working with. I had no problems with any of the programs currently available — the mouse kept up with whatever I threw at it. But remember, you do need a WIMP to get the most from a mouse — that's right, a Window Icon Mouse Program. And although there aren't that many at the moment, you can reckon on a whole flood following up the success of the pioneers like OCP, AMS and SofTechnics.

When it comes down to accuracy the AMX mouse is superb. It can cope with high-speed drawing and pixel-point accuracy. The real power of the mouse is control. Unlike a joystick which uses a simple switch system that tells it to go left or right, the mouse can finely control how far you want the cursor to go left or right. Not much good for Space Invaders maybe but with art packages like *Art Studio* this sort of control makes all the difference between producing a scribble and a Van Gogh masterpiece.

TAKE ART

AMX Art is a good enough package in itself but it is really only a demonstration of what the mouse can do. It sports various tools including Eraser, Pencil, Paintbrush, Spray Can, Palette, Box and Circle Mode and has a number of pull-down menus that make using it simple. But if you really want to see how the AMX mouse can shine, a copy of the *Art Studio* from Rainbird is a must. (If you have microdrives then it's definitely worth splashing out the extra on the Extended version.) And if you already have a copy of the *Art Studio* an AMX mouse is a must — they were made for each other!

FROM THE TOP

When in use with *AMX Art* the three buttons on the top each have a different function — Execute, Move and Cancel. In *Art Studio*, however, each button does the same thing — Select.

FAX BOX	
Package	**AMX Mouse**
Publisher	**Advanced Memory Systems**
Price	**£79.95**

ART STUDIO COMPETITION

Now's your chance to win the best equipped Art Studio in the country. Rainbird is offering two Microvitec colour monitors and eight AMX mice — all you need is a copy of Art Studio.

By now you should be bursting with ideas and raring to try them out on *Art Studio*. The hints'n'tips that Martin and Neil have come up with are just a fraction of what you can do with the program. They could both go away and write a book each on how to get the best out of the package — and still the subject wouldn't be exhausted. No, the *Art Studio* is one of those rare programs that has you hooked from the moment you start using it. And the more you use it, the more ideas you get for things to do with it. And the more ideas you have the more you want to swop them with other addicts.

HIP HINTS

So, that's why we're asking something slightly different from you for this competition. What we want you to do is send in your hints'n'tips for *Art Studio*. We're not looking for masterpieces that've taken months to perfect — though we'd love to see them, of course. No, we're after that interesting little trick that you picked up while playing around with the package. It might be a great idea for the logo of your school magazine, or a business letterhead, or a birthday card. It may just be a neat way of distorting an image that you reckon no-one else has thought of yet. But whatever it is, the judges, Martin and Neil won't just be looking for the polish of your entry so don't be put off if you're not one of the arty-farty lot. The winners will be those of you with the best ideas — the type of idea that makes everyone say, "I wish I'd thought of that!" — even if your execution isn't up to scratch.

There's no limit on the number of ideas you submit. And you can send them in in a number of ways. If you have a printer, dump out your Screen$ and tell us how you went about creating them in a few words by the side of each one. Or send in your letterhead or logo or birthday card. *(Mine's in April so you're just in time! Ed)* If you haven't got a printer, a cassette or microdrive will do and add a few notes and perhaps a sketch or two so that we can tell what you've done. The only stipulation is that all entries must have been created using Rainbird's *Art Studio*.

FROM THE ART

And now for the prizes. If you're using Art Studio, you'll soon want to set up a system that'll help you get the best from it. And that means a colour monitor to start with. So, why settle for anything less than the best — a Microvitec Cub monitor that's completely compatible with your Spectrum. Rainbird's offering two of them to the first prize winners. Then you'll want the flexibility, accuracy and speed that a mouse has to offer — an AMX mouse. There are eight of them up for grabs — two for the first prize winners to go with their monitors and six for the runners-up. That's way over a £1000's worth of prizes in all.

But really the best bit about a competition like this is that everyone wins. If you've got a copy of Art Studio you'll end up richer whether you're a prize winner or not. We'll be printing the prize winners' entries in full so that everyone can share in the wealth of fresh ideas.

ART RULES

Even though he couldn't paint a ceiling, let alone a canvas the Editor's decision is *still* final. Closing date for all entries is April 30th 1986. Employees of Sportscene Specialist Press, Rainbird, AMS and Microvitec are ineligible for this competition.

ART FORM

They don't call me Quick Draw McGraw for nuttin'. Here are my hints'n'tips for making the most of Rainbird's Art Studio.

Name (other than QD McGraw) ....

Address ....

....

.... *Postcode* ....

If you send a microdrive or cassette, please include an sae if you want it returned. Now clip the coupon (or a photocopy) and send it with your entry to Art Studio Compo, Your Sinclair, 14 Rathbone Place, London W1P 1DE.

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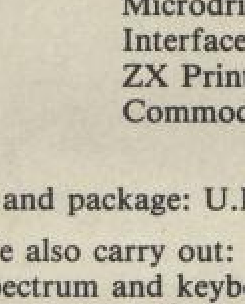
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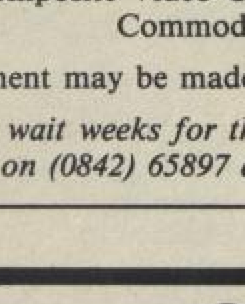
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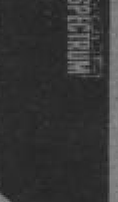
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• Swop *White Lightning* for *Picturesque E/A* or *Monitor*. Also *Shadowfire* or *Valhalla* for *Alien 8*. Write to L.F. Potter, 209 Ladysmith Road, Mount Gould, Plymouth, Devon PL4 7NR.

• Look!! I have loads of games to swop, including recent chartbusters! Reply now and send your list to Gerard Cahill, 22 Church Drive, Clarecastle, Ireland.

• Swop *Rocky Horror Show* for *Gremlins, View To A Kill* for *Frankie Tapper* or *Fighting Warrior*, plus others. Ring (0532) 651173 and ask for Daniel.

• Swop *World Cup, Football Manager, Horace And The Spiders, Olympimania, Manic Miner, Terror Daktil*. All six for two out of these three: *Sherlock Holmes, Exploding Fist* and *Test Cricket*. Colin Maunder, Higher Rillaton, Rilla Mill, Callington, Cornwall, PL17 7PA.

• I've got *Illustrator* and want *Dun Darach*. Also got *Fairlight, Critical Mass, Southern Belle, Broad Street, The Patch* and want *Confuzion, Psytron, Combat Lynx, Cyclone* and *Wheelie*. Swop one for one. Clive Parsons, 32 Calshot Close, St Columb Minor, Newquay, Cornwall.

• Swop any one of five games: *The Valley, Software Star, Planet Of Death, Viking Raiders* or *Mugsy* for the *Fall Of Rome* by ASP Software. David Raywood, 11 Rutland Road, Goole, N. Humberside DN14 6LU.

• I have games to swop including *Yie Ar Kung Fu, Knightlore, N.O.M.A.D., Gyroscope, Commando, Automania, Mugsy, Sports Hero, Technician Ted* and *Atic Atac*. Phone me on (0934) 813497 and ask for D.J.

• Will swop *Yie Ar Kung Fu* for *Fairlight*. Phone 061-707 1818 and ask for Neil.

• Will swop *Grumpy Gumphrey Super Sleuth* for *Saboteur*. Write to 34 Hereford Road, Harpur Hill, Buxton, Derbyshire. Also offer *Zaxxon* and *Pool* for *Back To Skool*. Must be originals.

• Will swop *Nightshade* for *Boulderdash II (Rockfords Revenge)*. Also will swop *Skool Daze, Squash, Grand National, Automata 10 Pack* and *Pogo* for *Elite* or *Commando* and *Hypersports*. Tel: Paul on Coventry 445920.

• Swop *White Lightning* and various books all as new condition for *Masterfile* or *Art Studio* originals. Tel: (0664) 61571 after 6pm and ask for Gary.

• Swop 25 games incl. *Frankie Goes To Hollywood, Fairlight, Way Of The Exploding Fist, Dun Darach, Back To Skool, Raid Over Moscow, Underwurlde* etc. for one of *Spy Vs. Spy, Yie Ar Kung Fu, Saboteur, Red Moon* or *Dynamite Dan*. Tel: East Kilbride 44356 for info.

• Games to swop on Spectrum include *Commando, Fall Guy, Starstrike, Ometron, Now Games 1* and more. Write to Jonathan Holt, 30 Brookside Avenue, Grotton, Oldham, Lancs OL4 4LJ if interested.

• I will swop any of these games for *Spy Hunter: Atic Atac, Monty Mole, Hunchback 1* or *Action Biker*. Tel: (0604) 44042 and ask for Robbie.

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• Swop *Make-A-Chip, Scrabble, Survival, Chequered Flag* and *Chess* for ZX81 and power pack or any Speccy software/hardware. Apply to Stephen Page, 70 Tynemount Road, Ormiston, East Lothian, Scotland EH35 5JP.

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• Swop *Eskimo Eddie, Kong II, Oracle's Cave, HOTT*, for *Elite* or *Dun Darach* and *Jetman. Project Future, Fantastic Voyage, Trashman* for *Rockford's Riot*. Phone (0533) 677250 and ask for Simon.

• *Commando, Gyroscope, Yie Ar Kung Fu, Hyper Sports, Starquake, Back To Skool* and many more new titles to swop. Phone (0223) 833966 between 4pm and 9pm and ask for Michael. Also *Robin Of The Wood*.

• Many new games to swop. Includes *Yie Ar Kung Fu, Panzadrome, Fist, Glass, Starquake, Starion, Fairlight, Nightshade, Shadowfire, D. Dan*. Send your list for mine. Write to Paul Hunjan, 8 Pargeter Street, Walsall, West Midlands WS2 8RP.

• Lots of 48K and 16K programs including *Commando* and *Back To Skool*. Will reply to any letters for lists etc. Tel: (0203) 315646, or write to Alan Smith, 9 Kirkstone Road, Bedworth, Nuneaton CV12 8SA for lists etc.

• Wanted. *Elite*. Swop for *Gyron* and/or *Tasmerge*. S.F. Clark, 4 Farley Park, Oxted, Surrey RH8 9HY.

• Swop 40 games, Currah, interface and programmable joystick for Interface 1 and microdrive and Multiface 1. My material is all in good shape! Write to Francisco Cabral, R. Navagantes 54 S/L Esq, Lisboa, Portugal.

• Any hints for *Lord Of The Rings*? Please hurry, my sanity rests on your answer. Robert Lilley, 18 Rosebery Gardens, Belfast, Co. Down, N. Ireland.

• I have over 700 titles to swop for other software. *No. 1, Fairlight, Popeye, Nightshade* etc. Juan Espineira Alvarez, Travesia de Vigo, 179 5oD, Vigo-7, Spain.

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• Swop *Glass* for any of *Knightlore, Alien 8, Nightshade, Sabrewulf, Nodes Of Yesod*. Must be good condition originals. Contact Jonathan Wilson, High Carlingill, Tebay, Penrith, Cumbria CA10 3XX.

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• Spectrum +, Interface 1, two cassette recorders (one faulty but useable), Doubler Mk. 2, games, magazines. All in superb condition with all leads etc. £150 ono. Tel: 031-336 3588 and ask for David.
• For Sale: 48K Spectrum with tape recorder and over 50 tapes worth £250, asking price £200. All in good condition. Tel: Keynsham 5626 and ask for Nick or Jon.
• Swop ZX printer for *Quill* or sell for £12. Will also accept two good games — *Skool Daze* and *Monty Mole* if possible. Tel: (0273) 721187 and ask for Andrew.
• ZX LPrint III Centronics/RS232 printer interface (with RS232 lead) £30. *YS* issues 4,7,9,10,11 £5 each. Tel: 041-959 6125 and ask for Gregor.
• Rotronics Wafadrive + 20 wafers + Centronics Cable+ Technical manual + transfer utilities £70. Tel: (0483) 65757 and ask for Robert.
• 48K Spectrum, professional keyboard, Rotronics 2x128K Wafadrive with Centronics and RS232 interfaces. Datec Sound Sampler. Over £300 software and books. Excellent condition £185 ono. Tel: 061-748 4274.
• Dataspectrum Modem interface and software package. Supports Prestel, Micronet, Bulletin Boards, Telesoftware on 75/1200, 300/300, 1200/75. It's suitable for most Modems. Unwanted gift hence £25. Phone Paul on (0602) 641176.
• For sale. Currah MicroSpeech and DK'Tronics light pen and DK'Tronics sound synthesiser. All boxed with instructions and tapes etc. £20 each. Phone (089283) 2811 after 4pm and ask for David.
• Will swop my broken ZX printer and two rolls of printer paper (printer can be fixed) for any offers, will swop original software as well. Phone (0639) 730442. Hurry or I will throw it away.
• Tasman Centronics printer interface, ribbon cable and software. Perfect condition only £25. DK'Tronics joystick interface, Kempston and 67890 as new only £7.50. Phone Paul on (0602) 641176.
• 48K Spectrum, Kempston interface and Quickshot joystick, magazines, some games and manuals all for £80. Phone Leeds 864719 and ask for Neil.
• One Currah MicroSpeech unit for sale £15. One DK'Tronics light pen and interface £10. Tel: (0908) 648189 after 4pm and ask for Paul.
• 56K ZX81 for sale plus manual, plot 'n' print paper, five original tapes including *Inch Curse, Startrek, Sorcerers Island* etc, plus four mags. Asking only £30. Phone Rattlesden 7746 and ask for Steven.
• For sale. One microdrive boxed and under guarantee £20. RAM Turbo joystick interface and Quickshot 2, and five ROM cartridges £20. £250 software including *JSWII, Raid* etc. £30. First offer secures. Tel: (0525) 378148 and ask for Michael.
• ZX80 manual £3, Making Most of ZX80 £3, thirty ZX80 programs £3, ZX80/81 RAM 4K extra £11, ZX80/81 Power Pack £6, ZX81 complete plus business software ×3 £36. (All postpaid). Tel: 01-834 5592.
• Spectrum printer with three rolls paper £16 ono. inc. P+P. Also DK'Tronics keyboard £20 ono or both for £32. Mark Payne, 5 Bassett Road, Coundon, Coventry, West Midlands CV6 1LF.
• Brand new VTX 5000 Modem to swop. Particularly interested in microdrive but will consider any swop offered. Tel: (0777) 84305 now! Also nearly complete set of *Your Spectrum* to swop.
• LTR-1 printer for sale. Hardly used. Complete with spare ink rollers. Two months old. £80. CR Smith Flat 6, Wych Hill House, Wych Hill Rise, Woking, Surrey.

PEN PALS

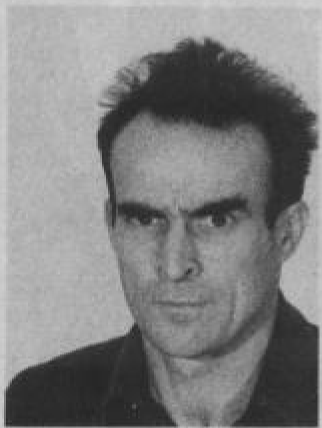
• Penpal wanted. I have hundreds of games. Send your list for mine. Don't wait, write now! A. Mohammed, 29 Amherst Road, Withington, Manchester M14 6UR.
• I am a 20 year old student at the Coal-mining Institute. I am interested in computers and have a Spectrum+. I would like a computer-owning penpal. Jerzy Chlebicki, W. Ryszki 59/59, 41-500 Chorzow, Poland.
• Hurry! Last chance offer! I'm 15 (tall, dark and handsome) seeking attractive English female Speccy owner, preferably same age, to swop progs, pics, games etc. Write to Matt Taylor, 11 St. Hilarys Close, Lincoln.
• Lonely male 6ft blond, blue eyes seeks female penpal 16+. Interested in M/cycles, music, videos, computers. Own Speccy, Kempston joystick and 60 games. Richard Neal, 10 Maryland Court, Rainham, Gillingham, Kent ME8 8QY.
• Mature (34) Speccy user with less than no knowledge wants to swop hints and programs with anyone, anywhere. Send tape or letter to Roger Wallis, 58 Old Heath, Heathgates, Shrewsbury, Shropshire.
• 21-year old, especially into adventures and female programmers, would like to swop ideas, games and hints with anyone. Over 400 games owned. Glenn Smith, 182 Brighton Road, South Croydon, Surrey CR2 6AE.
• 13-year old Speccy owner requires a male or female penpal to swop hints and POKEs with. I have a lot of up-to-date games. Write to Steven Mackie, 19 Beattie Avenue, Aberdeen AB2 5AQ.
• Male or female penpal (20+) wanted by male Spectrum owner (23). Likes include adventure games, photography and football. Graham Munro, 24 Glendee Road, Renfrew, Scotland PA4 0AD.
• I am 13 and would like a penpal of any sex to swop software, hints, POKEs etc. Write to Paul Robson, 72 Stokesly Crescent, Billingham, Cleveland TS23 1NE.
• 11-year old Scottie wants a penpal who will swop games and POKEs etc. Also swop software for hardware and other peripherals. Also interested in starting a magazine. Gordon Hamilton, 4 The Clouds, Duns, Berwickshire, Scotland TD11 3BB.
• Penpal wanted for 14-year old Speccy freak to swop tips, games, mags etc. Preferably female, but all letters will get a reply. Write to Dominic Bunn, 3 Church Road, Ashmanhaugh, Wroxham, Norwich, Norfolk NR12 8YL.
• Penpal wanted to swop software, maps, hints and POKEs, about 12+. Write to David Saunders, The Bungalow, Station Road, Wath-upon-Dearne, Rotherham, S. Yorkshire S63 7DG.
• Late 20's sailor owns a Speccy+ and seeks a lonely lady penpal (18-25) anywhere in the world. A beginner to computer programming and would like to know more about it. Educational and game tapes for swop are also welcome. Nelson Falconite, M/V Galloway Express, c/o James Scott & Co., Lower Glanmire Road, Cork, Eire.
• Lonely male (14) seeks female penpal (13-15). Write to David Wickes, 19 Fairlawn Park, Sydenham, London SE26 5RZ. If possible, please enclose a photo.
• Female penpals wanted by male Spectrum owner (23). Swop programs, ideas etc. Write to Graham Wolfe, 31 Kingscourt Road, London SW16 1TA.
• I would like a penpal far away from England, if possible America or Australia. Any age. Likes computers and making graphics but not very good at writing machine code. Matthew Barton, The Old Vicarage, Broadwoodwidger, Lifton, Devon PL16 0EP.
• 16-year old male would like a female penpal 15-17 years. I like computers, music (especially *Tears for Fears*) and tennis. Enclose photo. S. Riley, 200B Broughty Ferry Road, Dundee, Scotland DD4 6JY.
• If you're looking for a tedious writer who has games that make you cry at first sight, don't write. I'm the opposite! I'll swop software etc. Send your list. Hurry!! José Rosada, Rua General Silva Freire No 7 R/C Esq. B, Olivais Norte, Lisboa, Portugal.
• Name: Calle. Age: 14. Profession: student. Searching for female from any nation. Hobbies: fishing, Spectrum, movies, books, photography and all kinds of music. Write to: Calle Nordlund, Barkspadev. 2, 752 47 Uppsala, Sweden.
• Female 23+ as penpal. Just started computing myself and don't know much. No need to know about computers. John Cavanagh, 190 Liverpool Road, Huyton, Liverpool, Merseyside L36 1RJ.
• Any interesting males aged 14-16 want to write to a wonderful female with a great sense of humour? Write now to Marie Walker, 33 Welch Avenue, Stapleford, Notts. NG9 8EJ.
• I'm 14 and would like male or female penpals of about the same age for tips, adventure tips, POKEs and maps. Write to Bosco Lam, 26 Acres End, Amersham, Bucks
• Female penpal wanted aged 14-15. Please send a photograph. Will swop games, POKEs, hints, etc. Write to Aamer Rafiq, 73 Tolworth Rise North, Surbiton, Surrey, London KT5 9EN.
• Penpal wanted, male or female aged about 16. Into swopping games, m/code programming etc. Will reply to all letters, paper or tape. Write to Dave Moore, 5 Burdett Close, Skegness, Lincs. PE25 2NY.
• A 16-year old boy would like to meet females betwen 15 and 17. I am interested in computers, music and having fun. Please send photo to Carl Bianco, 20 Greenvale Drive, Brightons. Falkirk, Sterlingshire, Scotland.
• Var är ni alla Nordiska Spectrum ägare som vill byta program, POKEs eller bara prata Spectrum? Skriv eller ring till Tomas Söderquist, Strandvägen 15, 45200 Strömstad, Sweden. Sånd din lista för min.

WANTED

• Following games urgent: *Ghostbusters, Darts, Snooker, Alien, Gremlins, Lord Of The Rings, Blockbusters.* Buy or swop any for *Tasword 2* and *Chess* and *Music-Master.* Paul Das, 34 Granville Road, Middlesbrough, Cleveland TS1 3PF.
• VTX 5000 will swop RAM Turbo interface and *Robot Messiah, Talos, 911TS, The Boss* and *Jetman* and *Fighter Pilot.* Ring now (0296) 32646 after 5pm and ask for Kiranjit.
• Speccy disk system wanted. Swop for *Fist, Gyroscope, Match Day, FB Boxing, Spy Vs. Spy, Doomdarks, Match Point, Computer Hits.* Sim Jones, 3 Cradoc Close, Brecon, Powys LD3 9UH.
• Wanted Multiface 1. Will swop for Comcon and five games from my collection. Write to C. McRobert, 6 Martello Avenue, Holywood, N. Ireland BT18 0DH.
• *Elite* (original) wanted urgently. Will swop *Brain Damage, Winged Warlords, Spectipede, Robotics, Spacewalk.* Write to S. Ashby, 290 Grange Road, Gillingham, Kent ME7 2TB. Also have tips and POKEs.
• Will swop tons and tons of unboxed space Lego for Saga Lo profile keyboard of Alphacom 32 printer and paper and interface for Spectrum. Please write only. Matthew French, 8 Birchall, Pixley, Ledbury, Herefordshire HR8 2BR.
• Has anyone got the advanced *Dungeons and Dragons, Dungeon Masters Guide* to sell. I will buy or swop for software. Please ring (0502) 741236 Sunday and Monday 6.30pm — 9pm.
• Wanted. Currah MicroSpeech, will swop for tapes e.g. *Jetpac, Penetrator, Flight* and other BASIC games, also book on computing. Write to Peter Merrick, 57 Lennox Street, Rockdale, Sydney, Australia 2216 (preferably Australian).
• Software to swop, send your list for mine. Write to Kevin Chan, 77 Browett Road, Coundon, Coventry CV6 1AX. P.S. I would swop software worth over £30 for a ZX printer.
• Wanted: Interface 1 in good condition. Phone Northwood (09274) 21104.
• Wanted: *Robin Of The Wood.* Swop for *Arc Of Yesod* and *F.B. Boxing* (or *Exploding Fist*) Tel: (0723) 352517 after 6pm. Originals only.
• Will swop five new games for Kempston Scoreboard joystick. Must be in good condition. Games include *Monty Mole, Traxx, Street Hawk* and *Jason's Gem.* Contact Brian McKelvie on (0290) 23276.
• I will swop *Clumsy Colin* and *Soul Of A Robot* for *Skool Daze.* Must be original. Geoffrey Mole, 9 Abbeystead Drive, Scotforth, Lancaster, Lancashire LA1 4QS.
• ZX printer with or without paper. Will pay up to £10, or swop for hand-held (two-channel) C.B. Write to Mark Frith, 2 Falcon Green, Farlington, Portsmouth PO6 1LW.
• I would like to swop *3D Deathchase* and *Android 2* for either *Gyroscope, Alien 8* or *Highway Encounter.* Also I would like to swop hints, tips and POKEs. Tel: Grimsby 695675 and ask for Nathan.
• Swop electric guitar with Ferguson Revolver radio tape amplifier. Also three air rifles. Wanted: hard and software and Spectrum manual for Spectrum +. Anything considered. Ring (0924) 378621.
• Wanted: VTX 5000 Modem. Will swop Datel Digital Sound Sampler. Tel: (0472) 602445.
• Wanted: Interface 3 for Speccy. Will either swop for Currah "U" Speech and *Avalon/Tech Ted* or will buy for £20. Tel: (0484) 687083 and ask for Jason between 4 and 7pm.
• Interface 1 and microdrive in good condition. Tel: (0703) 769938 and ask for Aidan.
• Swop some of my *Crash* 3-12, *YS* 5 and 8-21, 16-48, 3-10 and 14. 6 software titles. Offers please. I want a Currah MicroSpeech in good nick with full instructions etc. J.D. Prentice, 39 Meeting Street, Ramsgate, Kent.
• Wanted: *Slomo* by Nidd Valley Micro Products. Will swop for *Machine Lightning* original and manual. Write to S. McCarroll, 41 Slingsby Drive, Upton, Wirral, Merseyside L49 0TY.
• Wanted: help on *Sherlock* and *Here Comes The Sun.* Write to Jo at 67 Plodder Lane, Farnworth, Bolton, Lancs BL4 0BX. Please help if you can.
• Paper for ZX printer urgently needed. John Ellis, 19 Wentworth Place, Scholes, Rotherham S61 2QX. Tel: Rotherham 562219.
• Wanted: ZX printer. Swop for any two of *Gremlins, Knightlore, Nightshade, Sabre Wulf, Alien 8* or *Ghostbusters.* Paper wanted. Phone (0424) 388 between 4 and 6pm and ask for Danny.
• Wanted: VTX 5000 Modem. Will swop microdrive in good working order. Tel: (0843) 68522 evenings only.
• Wanted: Interface 1, methods or software to connect the Interface 1 to Tandy CGP-115 printer. State price and please write to Thomas Lee, 11 Halbeath Road, Dunfermline KY12 7QZ.
• Wanted: copy of *The Hobbit* 48K Speccy. Book not required. Phone (0733) 235016 after 6pm.
• I've 90 per cent of the top 20 games and hundreds more! Your list and sae for mine. Interested!!! I am!!! Mathew Hook, 5 Rocky Lane, Bournheath, Bromsgrove, Worcs. B61 9HP.

MESSAGES, CLUBS & EVENTS

• Kevin Dominey thinks it is funny to advertise that to swop a CMB 64 for *Horace And Spiders* would actually amuse the readers of *YS.* I think he is a zero. Dan Green, Birchwood, Theobald St, Radlett, Herts.
• Wayne Rothan, don't give up your Spectrum. Life doesn't end when you can't beat *Lords Of Midnight.* Alan Bradshaw, 25 Bockingham Green, Felmores, Essex.
• Does anybody need POKEs or playing tips. If you do send a sae and I will send you the tips you need. Write to D.A. Culley, 24 Gayland Ave, Luton, Beds.
• Wanted: any POKEs you Speccy owners have up your sleeves! Please write: POKES, 12 Oaklands Close, Fordingbridge, Hants. Please hurry!
• Get better at *Hyper Sports!* Send a sae for a 20p information sheet with over eight screens-worth of information in it to J-P Wilkinson, "Laggan", Kilbryde Grove, Dunblane, Perthshire FK15 9AY.
• Wanted: light pen. Swop for *Quill, Hulk, World Series Baseball* or *Worse Things Happen At Sea, Pogo, Pinball Wizard* — originals. Tel: 01-602 6758 and ask for Savan.
• Please, please, please, anyone with a copy of Triumph's *Rock And Roll Machine,* write to me. I'm prepared to pay enormous sums of money for this item! Obviously the condition of the record is important, but all replies will be considered. Please write to Miss J. Francis, 85 Ball Road, Rumney, Cardiff.
• Well done Pam and Alan, over 12 months since you loaded, you're still running okay and you haven't crashed once. Love and best wishes Jo and Colin. Good luck.
• I had a penfriend called Adam. I lost your number! Contact me. Nick Wetsalot, Radlett 6214.
• Would Ronald Windett of Rainham, Essex, please contact us. We are sorry, we have lost your address. St Brides School, Burtonport, Co. Donegal, Ireland.
• Fergle, Kiernan and Meickle: don't forget 3/3/86, 10 am, Top Pool. Hi also to Chisler and all the Hunts. Transinvainail tower and zzzoom rool! Good luck and Happy Bloomers, Sinom. Carrigaline, Co. Cork, Eire.
• Spectrum maps 50p each. Send sae for list. You send us the game, we'll make the map. Don't get lost, send to us now. Simon Richards, 66 Westerlands Road, Wadebridge, Cornwall PL27 7EU.
• Boltz. Get lost with tape. Letter. Speccy and fingers tired. From Wyns. Down with Commodore 64. Long live the Speccy. Mock exams are over now. Hoorah! Night night Wyns. 15 Reid Close, Haughton Green, Denton, Manchester.
• *Illustrator.* I have complete commercial adventure but graphics need improvement prior to publication. *Quill,Illustrator* and *Patch* used. Can you collaborate quickly? Split any proceeds. Terry Braverman, (0223) 68100.
• Spectrum Unemployed User Group wants members. Tape magazine, swop club, legal advice — all free! Non-profit making club. For details send sae only to SUUG, 86 Crewe Street, Normanton, Derby DE3 8QP.
• Help! Any tips for *Sorcerer Of Claymorgue Castle, Ship Of Doom* or *Hobbit*? I'm sure there's a genius somewhere. Write to 104, Spring Lane, Canterbury, Kent. Please help.
• Discovery Users Club, The Netherlands, is looking out for fellow users in the UK. Please contact D.C. Kruithof, Boeierkade 6, 2725 CH Zoetermeer, The Netherlands.
• Issues of *Sinclair User* for sale. 3 to 22 £5 each, 23 to 37 £3 each. 37 onwards £1.50 each. Tel: Garstang 5066 after 6pm and ask for Gerald.
• *Your Spectrum* complete. Best offer secures. Phone (0724) 763334.
• Alice, I told you I'd get you in the best mag there is. J.D. P.S. Write soon. 5 Exbury House, Brent House Road, Hackney London.
• Has anyone got any POKEs for Carnell's *Adventures Of St Bernard,* or Mastertronics *Release.* Will swop for games. Andre Osborne, 31 Saffron Platt, Guildford, Surrey. Tel: Worplesdon 235987.



BACKLASH

***Iolo Davidson* — the profit of programming.**

It's been brought to my attention, somewhat abruptly, that there's no money to be made in programming home computers anymore. Sure, software's still selling, and cash continues to change hands at a great rate, but not much of it's sticking to the people who do the actual programming. The businessmen have got in.

Time to become a businessman, I guess. They may be an unsavoury lot, but my principles will certainly stretch to it. I wouldn't care to tell you how I earned my living before a series of unlikely accidents brought me to the back page of this magnificent organ. Who am I to be fussy? It's the lads I worry about.

A few years ago we were all hearing stories about home computer whizz kids getting fabulous salaries and company cars before they were old enough to drive. I wonder what happened to them. They can't all have become journalists, not unless their spelling has improved. If they're still programming, then their standard of living must have taken a tumble. And that's a great pity. For the first time since John Lennon the wearing of spectacles actually became cool again. There was even a movie with a young hero who not only happened to be clever, but was the hero *because* he was clever. Pity the stupid nerk sparked World War Three.

It seems that the shortage of machine code programmers of a few years ago has apparently been transformed into a glut. And on top of that, the whole home computer software scene has changed. Software companies that were started by gifted enthusiasts have sold out or faded away, leaving the field to the professional marketing companies. Some of these seem to employ no programmers at all.

Successful software companies now spend their time wheeling and dealing, working out how to get the best results from their advertising budget, finding a duplication company that'll record cassettes for a few pence less, and most vital of all, clinching that tie-up with the latest movie or TV show. Plenty of time to hire a kid to throw a game together when they've got the important business sorted out.

The simplest way of coping with the bothersome business of coming up with a product on which to exercise those all important selling skills often turns out to be subcontracting the chore to another firm. I've noticed a lot of advertisements in the computer press for programmers since the beginning of the year. But I didn't recognise any of the names of the companies, not as software publishers.

That would square with what happened to me. At about this time last spring, I was looking for some free-lance work, having just become an ex-editor. Since programming had paid better than most of the other wheezes I'd tried in the past, I approached a company that was advertising for Z80 programmers. They said they'd have something for me shortly, then all went quiet. Don't call us, I thought, we'll call you. Well, a man has to eat so eventually I found less demanding activities to occupy my time. In August they were back. Was I still available for an upcoming project? they asked. I admitted that I retained some spare capacity. A full month later, the postman delivered a very ambitious program specification and a two month deadline, along with a flat rate, no royalty, monetary offer which in no way excited my avarice.

It was also revealed that the program was to be published under a name much better known than the company that contacted me. It would be quite unprofessional (and a bit rotten) of me to reveal the names of the program, publisher, and subcontractor after trying to get them to hire me. But if I *were* to do so, you'd certainly recognise the first two names. But I shan't, so there's an end on't.

At this point I turned the project down, pleading that I had no confidence in my ability to meet the specification in the time allowed. I tell you this not to impress you with my laziness and greed, notable though they be, but because I notice that the program in question did in the end get written — it went on sale around the end of January. Apparently the deadline was allowed to slip or the thing would have been out before Xmas as planned. We journalists have to take our deadlines more seriously, of course!

Anyhow, the point is that someone apparently worked on the program for three or four months for a remuneration that I'd felt was inadequate wages even for two months. Put it another way, knowing the cost of magazine space and the rate that was being offered for the job, I'd say some whizz kid wrote the program for little more than the cost of just one of the full page colour ads used to hype the thing.

Maybe I've been spoiled. Maybe it would have been a worthwhile chunk of cash for a sixteen year old, living at home, with little hope of getting a proper job. The chance to be exploited by a viable business might be more attractive than a stint on a YOP scheme. But there isn't any future in it — not while there's a seemingly inexhaustible supply of brilliant teenage programmers trying to break into the business.

So the next time some anxious parent asks me which computer they ought to get their kid to give him a good start in life, I shall tell them to forget it. "Worried parent," I shall say, "If you want your offspring to be a star, give him a thick ear, a guitar, and a couple of pints of hair gel. The stone age has returned."

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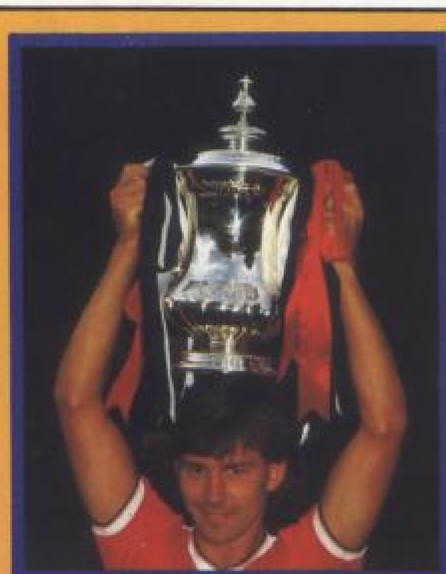
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